GObook

User's Manual

Identification
GoBook (IX250) User's Manual
January 2001 · Revision 003

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Compliance Statements

The GoBook (IX250) computer has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The GoBook (IX250) computer complies with Part 68 of the FCC Rules. On the bottom of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

The GoBook (IX250) computer may be connected to the telephone network using the RJ-11 jack provided.

If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact the equipment manufacturer for repair and/or warranty information. Do not attempt repairs of this equipment yourself without obtaining manufacturer authorized parts and documentation. If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

Compliance Statement for Canada

NOTICE: The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION! Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

The Ringer Equivalence Numbers (REN) are:

GoBook (IX250) non-radio: 0.5B

GoBook (IX250) ARDIS: 0.5B

GoBook (IX250) RAM: 0.5B

GoBook (IX250) CDPD: 1.3B

NOTICE: The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

The GoBook (IX250) computer may be connected to the telephone network using the RJ-11 jack provided.

Fax Branding

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone fax machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual.

In order to program this information into your fax machine, you should complete the following:

This information is entered through the FAX application software you have installed.
Consult your FAX software documentation for instructions about entering this information.

Warnings and Cautions

WARNING It is important that only authorized Itronix personnel attempt repairs on Itronix equipment as this might void any maintenance contract with your company. Unauthorized service personnel might be subject to shock hazard on some Itronix equipment if removal of protective covers is attempted.

The product you have purchased is powered by a rechargeable battery. The battery is recyclable and, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Do not crush the battery or place it in a fire. Check with your local solid-waste officials for details on recycling options or proper disposal.

CAUTION Internal components of the GoBook (IX250) computer will be damaged if exposed to contaminants. When dust covers, the PC card door, or the battery door are open on the computer, shield the unit from all contaminants such as liquids, rain, snow, and dust.

WARNING ***"In order to comply with the FCC RF exposure requirements this device must be operated with a minimum seperation distance of 20 cm between the user/nearby persons and the antenna in its intended vertical operating position."***

"The antenna location is fixed in the upper right edge of the display screen and is not to be relocated"

"The equipment has been approved to [Commission Decision "CTR21"] for pan-European single terminal connection to the Public Switched Telephone Network (PSTN). However, due to differences between individual PSTNs provided in different countries the approval does not, of itself, give an unconditional assurance of successful operation on every PSTN network termination point.

In the event of problems, you should contact your equipment supplier in the first instance.

Safety Information

The following safety symbols are used in this manual to indicate potentially dangerous situations. Do not proceed beyond a WARNING or CAUTION symbol until the indicated conditions are fully understood and met.

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Introduction

Congratulations on your purchase of the Itronix GoBook computer! Your new GoBook features the most innovative advances in portable computing technology. It combines state-of-the-art ergonomics with a rugged, durable architecture to provide you with a notebook computer that is compact, powerful, rugged and easy to use. Designed for a wide range of general, business, and personal productivity applications, the GoBook is an ideal choice for use in the office, or on the road.

For maximum expandability without compromising portability, the GoBook accommodates a number of modules, including CD-ROM/DVD/FDD drives, and one PC card slot. The high capacity hard disk drive provides you with plenty of storage space for multimedia files and applications.

The GoBook features a standard 87-key Nitevue® keyboard (89-key international). The high-resolution 12.1-inch touch screen LCD panel provides clear and crisp viewing with touch screen convenience.

This User's Guide contains all the information you need to set up and use your new GoBook. It describes all the features of the GoBook in an easy-to-read yet thorough manner.

Unpacking Your System

Inside your packaging you will find:

- Itronix GoBook computer
- Power cord
- AC adapter
- Battery
- Stylus and Tether
- *GoBook Quick Start Guide*

You may have additional components or peripherals if you ordered these items separately. Check your packing slip for a complete list of items included in your package.

Precautions

You can use your computer under a wide range of environmental conditions. However, to ensure long use and continued high performance, consider the following factors when setting up your computer:

- Follow all warnings and instructions noted in this documentation and in the Windows Help program.
- The first time you use your computer, we recommend that you carefully read ***Section 5 Power Management*** to familiarize yourself with some battery basics to ensure optimum battery performance
- Unplug the computer from the power outlet before cleaning. Use a damp cloth for cleaning. Do not use aerosols, solvents, or strong detergents
- Slots and openings in the computer case are for ventilation purposes. Do not block or cover these openings or the system could overheat
- On the bottom of the GoBook, there is a label with information on the power requirements of this system. These requirements must be followed. If you are unsure of your local power supply, consult your dealer or local Power Company
- Do not step on or place anything on the power cord
- If you use the computer with an extension cord, ensure that the total ampere ratings of all the devices sharing the extension do not exceed the rating of the extension cord or the rating of the wall outlet
- Never push foreign objects into the computer through any of the slots or openings. Dangerous voltages are present, which could cause electric shock or fire, or damage sensitive components
- For best results, use a power strip with a built-in surge protector. Do not use inferior extension cords as this may result in damage to your computer

Checklists

After opening the package, carefully inspect the contents. Contact your dealer if any items are missing or appear damaged. The shipping carton should contain the following:

STANDARD

- A GoBook computer
- An internal battery
- An AC adapter with power cord
- Stylus and Tether
- Quick Start Guide

OPTIONS

The following items are normally optional, but some vendors may include them in the standard package. Some items may not be available in some countries, or some vendors may choose not to carry all the items.

- Floppy disk drive
- CD-ROM drive
- DVD-ROM drive
- Additional Li-Ion battery pack (3000 mAHr)
- Shoulder Strap

CAUTION When purchasing any of the accessories listed above, purchase only those accessories that are approved for use with your computer. The above accessories are proprietary items. Your system vendor can obtain these

approved accessories. If you use items that are not approved for use with this computer, you may cause your computer to malfunction, or to emit or receive electro-magnetic radiation in excess of local regulations. For non-proprietary accessories such as PC Cards or printers, ensure that the accessory functions properly in your computer before making the purchase. Your system vendor may be able to recommend reliable brands and models.

Features

High Capacity Hard Disk Drive

The computer has a high capacity hard disk drive, enabling you to install your favorite programs and store large multimedia files.

Full Array of Ports and Connectors

Your computer includes standard ports for connecting to peripherals such as printers and monitors. Additional ports allow you to add many other peripherals.

Large SVGA LCD

Your computer has a large, easy to view SVGA LCD panel.

Built-in Stereo Speakers and Microphone

The stereo speakers and internal microphone enable you to run a variety of multimedia applications.

Function Keys

Function keys allow you to suspend your computer, shut the LCDs off, and give you easy control of audio and your monitor.

Where to Look For Information

About Your Computer

This User's Manual describes the key elements of your computer. New users can find a simple step-by-step orientation in the Quick Start section of this chapter.

About Windows

The **Windows Online Help**, found on the Start menu, offers extensive Windows assistance. **Welcome to Windows** offers an online orientation for new Windows users. Find it in: *Start/Programs/Accessories/System Tools*.

The First Time. . .

Using your computer for the first time involves:

- Installing the battery
- Connecting the AC adapter to the computer
- Callibrating and charging the battery

Installing the Battery

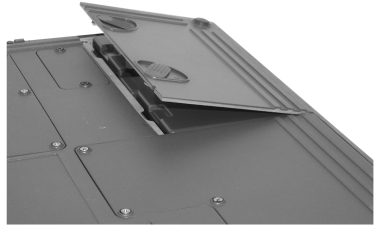
Make sure the computer is sheltered when you install the Lithium Ion battery; the computer is not weather sealed until the battery door is properly installed. The battery should be fully charged before you operate the unit on battery power. To get the most from your battery, follow the guidelines in ***Section 5 Power Management***.

To install the battery

1 Remove the battery door.

2 Align the battery connectors and place the battery in the computer.

3 Replace the battery door and rotate the door latches to secure the door.



NOTE When the battery is installed and the computer is connected to AC power, see Connecting the AC Adapter below, it starts charging automatically. At moderate temperatures, approximately 70° Fahrenheit (21°C), the battery will be fully charged in four to six hours. In warmer or cooler temperatures, the battery can take much longer to fully charge. Refer to ***Section 5 Power Management*** for additional information.

Connecting the AC Adapter

To connect the AC adapter

1 Connect the AC adapter power cord to the AC adapter.

2 Connect the AC adapter to the power jack at the rear of your computer.

3 Connect the AC adapter power cord to an AC outlet.

4 Lift the display to open the LCD.

5 Open the LCD panel to a comfortable viewing angle.

6 Press the power button to turn ON the power.

Turning the Computer On and Off

You can operate the computer while the battery is charging, while on external power, or on battery power only.

To turn on the computer

- Press the ON/OFF button once, and then give the system time to respond.

To turn off the computer

1 From the Start menu, click Shut Down.

2 Select the Shut Down from the Shut Down Windows screen, then click OK.

If you need to leave the system for a short time, or if you want to conserve battery power, you can suspend the computer by pressing FN + F3, see ***Section 5 Power Management*** for additional information.

Suspend to RAM In a suspend to RAM, the contents of your computer's memory are held intact, while practically all the rest of the components in your computer either turn off completely, or reduce power consumption to a minimum. In a Suspend to RAM, your computer remains active, but with a minimum possible power consumption. Return the computer to full power by pressing any key. A fully-charged battery can maintain a Suspend to RAM for many hours.

Suspend to Disk (Hibernate) Suspend to Disk is similar to turning off the computer, except that the current state of the computer is copied to the hard disk as a special file. In a Suspend to Disk there is no power consumption. When the computer returns from suspend mode, the desktop appears with the same files and programs open as when the computer was suspended. Suspend to Disk is very useful when you don't want to take the time to shut down all open programs one by one to shut off the computer. This mode is also called hibernation mode.

CAUTION Shutting down the computer improperly could result in lost or corrupted data.

Adjusting the Volume

Volume for the computer is adjusted by using function key combinations.

- FN + F8 decreases the volume
- FN + F9 increases the volume
- FN + F10 mutes the volume

You can also adjust the volume with the Windows volume control applet, which is located on the taskbar and looks like this .

NOTE Adjusting the volume using the function keys produces only a slight change with each press. It may take several presses to increase or decrease the volume to a level that you desire.

Calibrating the Touch Screen

Your GoBook computer has a touch screen display. Follow the guidelines below to calibrate the touch screen for optimum use.

CAUTION

- Always use an approved stylus.
- Never use sharp, hard, or abrasive implements on the touch screen such as ball point pens, pencils, or keys. They could damage the screen.
- To clean the touch screen panel, apply a household glass cleaner to a soft, clean, dry cloth and wipe the screen.

Calibrating the touch screen

To calibrate the touch screen click the Start menu, select Programs, UPDD or Touch screen, and then select "Calibrate", which opens the touch screen calibration program.

Calibrating the touch screen involves touching and releasing on the **X** with the stylus on your screen. This action aligns the background image with the screen.

NOTE If you cannot select objects accurately with the stylus you may need to re-calibrate the touch screen. This can be accomplished by revisiting the procedure above.

Adjusting the Screen

You can adjust the display brightness for better viewing.

Use the following keys to make adjustments:

To Do This…	Press
Lighten the display	FN+F7
Darken the display	FN+F6

Setting the Date and Time

To set the date and time

1 Click the Start button, select Settings, select Control Panel, and double-click the Date / Time icon.

2 From the Date / Time Properties menu, make changes to the Time and Date, and then close this screen by clicking OK.

Startup Problems?

If your computer does not operate, try these solutions.

- Connect the AC adapter to charge the battery if it is not charged.
- If the AC adapter is connected, make sure the electrical outlet you are using works.
- Check to make sure the battery is installed and charged properly.
- If the battery doesn't begin charging, remove the battery, connect the AC adapter, and turn on the computer by pressing ON. Reinstall the battery. The indicator light is solid while the battery is charging.

The ***Appendix B Troubleshooting*** section of this manual lists additional solutions you can try.

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Introduction

The GoBook computer is a ruggedized, weather-sealed laptop computer system built for the demanding environment of the mobile worker. Designed for use by mobile workforces, this computer is one of the most practical work tools for collecting, managing, and communicating information in the field.

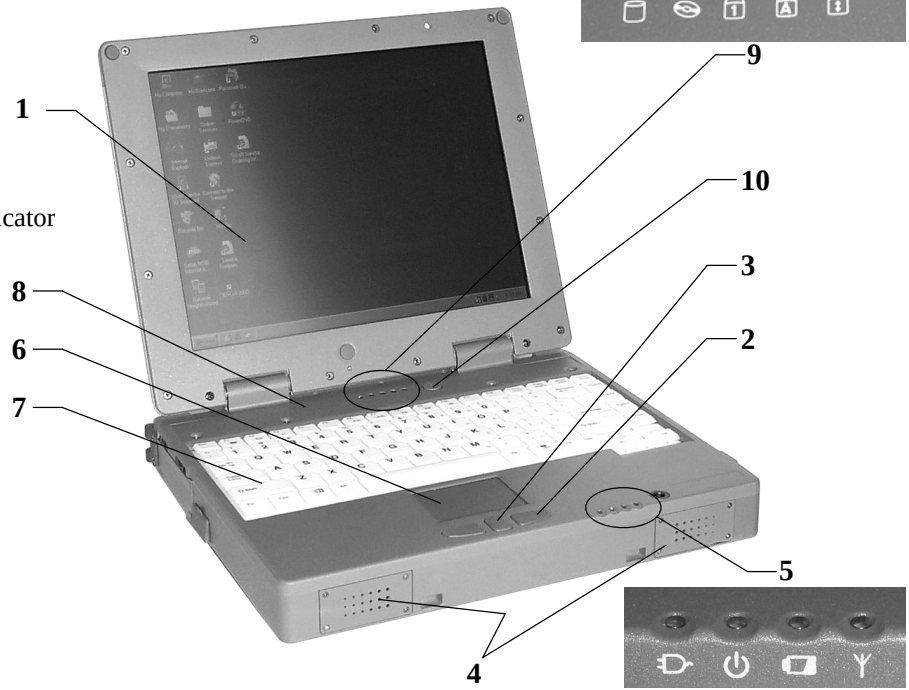
The following pages describe the external and internal features of your GoBook computer.

Individual Parts

The following diagrams and descriptions provide an overview of your GoBook computer.

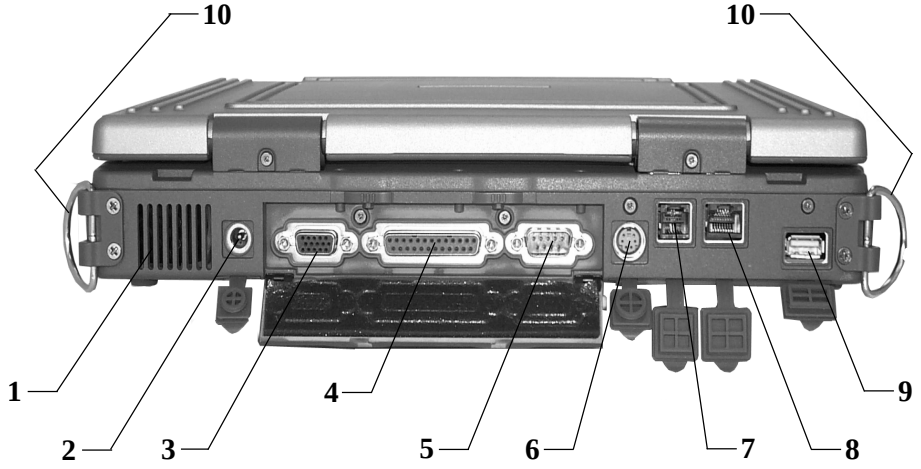
Front View

1 Touch screen display
2 Touchpad buttons
3 Scrolling button
4 Speakers
5 Power / wireless modem indicator
6 Touchpad
7 Nitevue™ Keyboard
8 Internal Microphone
9 Activity indicators
10 On / Off power button



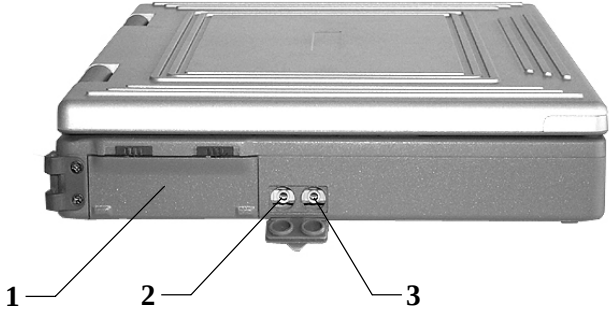
Back View

1 Cooling fan
2 Power jack
3 15-Pin VGA port
4 25-Pin parallel port
5 9-Pin serial port
6 PS2 port
7 RJ-11 modem jack
8 RJ-45 network jack
9 USB port
10 D-Rings



Left Side View

1 PC Card door
2 Microphone jack
3 Audio jack

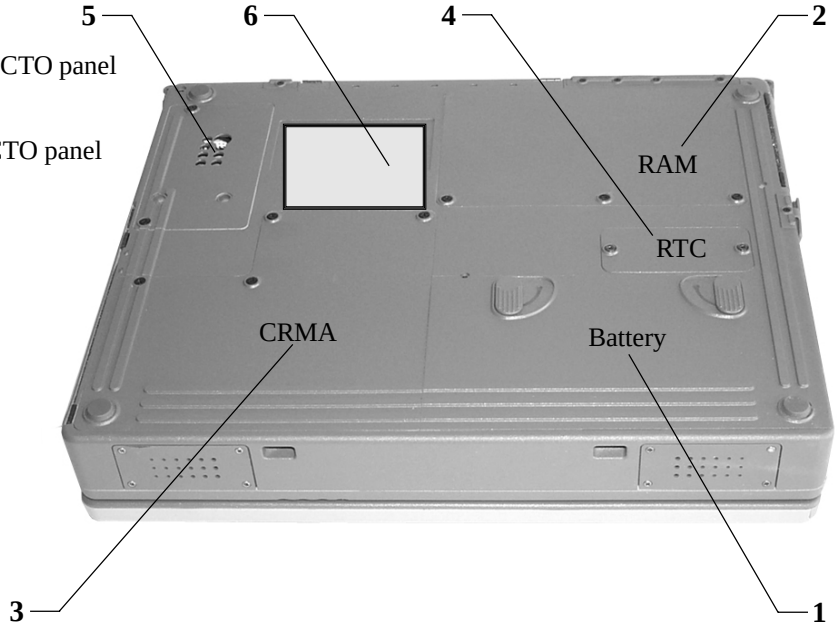


Right Side View

1 Media bay – CD, DVD, Floppy disk, or extra battery
2 Radio bay – CRMA (under media bay)
3 Cooling fan
4 Security slot

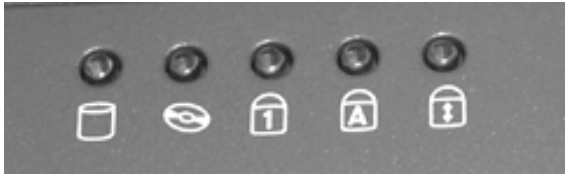
Bottom View

1 Battery Access Panel
2 Memory / mini-PCI modem / Lan CTO panel
3 RF adapter CTO panel
4 BIOS / Real Time Clock battery CTO panel
5 Cradle contact CTO panel
6 ID / Serial Number / FCC label



LED Activity Indicators

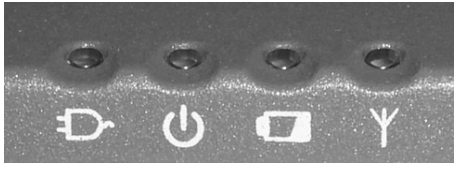
The activity indicators, located between the keyboard and the touch screen, light up when a particular function of the computer is active. Each indicator is marked with a corresponding symbol.



Icon	Function	Description
	HDD	The computer is accessing the hard disk.
	Media Bay drive	The computer is accessing the CD-ROM, the DVD-ROM, or the Floppy drive.
	Number Lock	The keyboard is in Num Lock mode.
	Caps Lock	The keyboard is in Caps Lock mode.
	Scroll Lock	The keyboard is in Scroll Lock mode.

LED Power / Wireless Modem Indicators

The case front LED's indicate external power, unit ON/OFF, battery status, and wireless modem ON/OFF. These indicators remain active and viewable even when the LCD panel is closed.



Icon	Light	Description
	Green	External power is connected to the unit.
	LED off	External power is not connected to the unit.
	Green	Power is ON
	Flashing Green	Suspend to RAM
	Green	Battery charging
	Flashing Green	Low Battery
	LED off	No battery / battery fully charged (will always be OFF without external power connected to the unit)
	Green	Wireless modem is ON
	Flashing Green	Message waiting
	LED off	Wireless modem is Off

Keyboard Basics

The keyboard on the GoBook computer looks much like the keyboard of a typewriter and operates in almost the same way. While typewriter keys put characters on paper, the keys on the laptop enter characters in the computer and perform certain functions, depending on the application or program.

The GoBook computer features:

- 87-key US / UK keyboard; 89-key international keyboard
- Twelve function keys, F1-F12
- Embedded numeric keypad
- Mouse keys and cursor control keys

Restarting the Computer

Press…	To do this
CTRL+ALT+DEL	Reboot the computer.

Primary Keys

Key	Description
ALT	The ALT (alternate) key is used with other keys to perform special tasks. Pressing CTRL+ALT+DEL resets the computer, processing stops and the computer attempts to restart the operating system.

ALT GR	The ALT GR key, a special function key found on the 89-key international keyboard, when pressed and held, allows you to use characters in the bottom right of a three character key.
BACKSPACE	The BACKSPACE key, sometimes represented on the keyboard as a left arrow, moves the cursor one position to the left. The character to the left of the cursor is erased. On the 89-key international keyboard the key to the right of the BACKSPACE key is also designed to move the cursor one position to the left. The character to the left of the cursor is erased. If other functions are designed for this key, the key will be printed with the appropriate legend.
CAPS LOCK	Pressing the CAPS LOCK key one time locks keys A through Z in the UPPER CASE position. Pressing the CAPS LOCK key again returns the letters to lower case. While in the upper case mode, pressing the SHIFT key results in lowercase characters when entered. You still have to use the SHIFT key to display characters located on the upper portion of the keyboard. For example, press SHIFT+8 to type an asterisk (*), even when the CAPS LOCK key is activated. The CAPS LOCK activity indicator is on when the keyboard is in CAPS LOCK mode.

Key	Description
CTRL	The CTRL (control) key works with other keys to perform a variety of functions.
ENTER	The ENTER key signals the computer that you have completed your entry. This is your way of telling the computer to process the information that you have entered.
ESC	The ESC (escape) key cancels the current line if you are working in DOS. In some DOS applications, pressing the ESC key backs you out of your last menu selection. In Windows, the ESC key allows you to exit a pop-up window or message box.
PRTSC	In Windows, pressing the PRTSC (print screen) key copies the current screen or window to the clipboard so you can paste it into documents. Pressing ALT+PRT SC key copies the active window to the clipboard.

SHIFT	The SHIFT key changes the keys A through Z to the UPPER CASE position. When you press an alphabetic key, the character appears as a capital letter. When you press SHIFT with other keys, the characters on the upper part of the keys appear. For example, pressing SHIFT+7 displays an ampersand (&).
FN	Function. Some special keys have been established to perform important tasks when pressed and held with the FN key. These keys are described later in this document.
SPACEBAR	Use the SPACEBAR to enter a space and move the cursor one character to the right. On the 89-key international keyboard the two keys to the right of the SPACEBAR are also designed to enter a space and move the cursor one character to the right. If other functions are designed for these keys, the keys will be printed with the appropriate legends.
TAB	The TAB key moves the cursor to the next tab stop or field. Tab stops are defined by your operating system or application program. Press the TAB key to move from one field or text box to another.

Arrow Keys

The arrow keys are defined by the software application.

The UP ARROW key usually moves the cursor up one line. In some cases, you can use the up arrow to make selections from menus and scrollable list boxes.

The DOWN ARROW key usually moves the cursor down one line. In Windows, you can use the down arrow to make selections from menus and scrollable list boxes.

The RIGHT ARROW key usually moves the cursor one character position to the right.

The LEFT ARROW key usually moves the cursor one character position to the left.

Function Keys

Hold the FN key while pressing the numbered function key.

Function key	Description
FN+F1	Toggles display on/off
FN+F2	Toggles between LCD/CRT displays
FN+F3	Suspend to RAM/HDD
FN+F6	Decreases LCD brightness
FN+F7	Increases LCD brightness
FN+F8	Decrease volume
FN+F9	Increase volume
FN+F10	Mutes the audio

Numeric Keypad

The numeric keypad is embedded in the keyboard area. The embedded keypad emulates the numeric keypad typically found on a full-size keyboard. It is arranged like a calculator for applications that require you to key many numbers or for use with the Calculator in the standard Windows Accessories.

Touchpad

The touchpad is a pressure sensitive pointing device that provides all the features of a two-button mouse. Its primary function is to move the cursor around the screen.

Using Your Touchpad

Clicking

1 First, place your fingers on the keyboard in the normal typing position. The touchpad is easily accessible by moving either your left or right thumb off the space bar and on to the touchpad.

2 Gently move your thumb across the pressure-sensitive touchpad in the direction you want the cursor to move. The pad detects the change in pressure and moves the cursor in the corresponding direction.

NOTE The touchpad on your GoBook computer is a resistive type touchpad and is electrically sensitive to finger touch. It will not respond if touched by anything other than your fingers, such as a stylus or pencil.

3 The touchpad offers another method of making selections in a software program. It is called *double-tapping*. This function corresponds to double-clicking with a mouse. Once the cursor has been moved to the object you want to select, *lightly* double-tap the pressure sensitive touchpad. This double-tapping on the touchpad will select the desired item and prompt the software to perform the related operation.

4 The left and right buttons located directly below the touchpad are the same in function as those on a two-buttoned mouse. Clicking these buttons makes selections, drags objects, or performs a variety of other functions depending on the software. To select an object, first move the pointer over the object you want to select, and then press the left button one time. The functions of these buttons are software specific.

Double-clicking

- *Double-clicking* is a common technique for selecting objects or launching programs from icons. Once you have moved the pointer over the object you wish to select, rapidly press the left button two times. This action is commonly referred to as “double-clicking” an object.

Dragging

- Move the pointer to the desired location then press down the left button. While still holding down the left button, move the pointer to the desired location. Release the button.

- Move the pointer to the desired location. Tap the touchpad twice quickly as if you were double-clicking, however do not remove your finger after the second tap. Move the cursor to the desired location. Lift your finger to finish dragging.

Adjust the touchpad settings by selecting Settings/Control Panel/Mouse/Buttons. These settings allow you to change the orientation of the touchpad from right-handed to left-handed, and fine-tune the pointer movement and timing of clicks.

Touchpad Precautions

The Touchpad is a pressure-sensitive device. If not properly cared for, it can be easily damaged. Please take note of the following precautions.

- Do not rest heavy objects on the touchpad or the touchpad buttons.

General Guidelines

The mobile computer uses a Liquid Crystal Display (LCD), which is the type of screen used on many notebook and sub-notebook computers. One problem experienced on computers with an LCD display, especially in cold environments, is that the cursor seems to "disappear" whenever the mouse is moved quickly. To improve the visibility of the mouse cursor, you should:

- Enable the "Pointer Trails" feature to add trailing cursors.
- Use a slow or medium speed/sensitivity level.

You can combine a higher level of acceleration with a slow or medium speed/sensitivity level. This will allow you to move the mouse cursor quickly by increasing your finger pressure, while still providing a finer degree of control when you apply minimum pressure.

NOTE To change the speed of the mouse, from the Start Menu select Settings, Control Panel, and then choose Mouse to make adjustments.

Scrolling Buttons

If you are scrolling through a document, you may find that using the scrolling button is more restful to your hand than holding down a mouse button. The scrolling button is located between the touchpad buttons. Push the top of the button to scroll up in a document or Web page; press the bottom of the button to scroll down in a document or Web page.

Connecting an External Keyboard or Mouse

You can use your GoBook computer with an optional external keyboard, numeric keypad, or IBM PS/2 compatible mouse. The devices are “hot swap” capable, which means you do not have to power down the GoBook to connect these devices to the PS/2 connection located on the back of the unit.

Disk Drives

Your computer comes with several components for reading and writing (recording) information.

The Hard Disk Drive

The hard disk provides high-capacity storage and fast access. Windows and most programs are stored here. Your GoBook identifies the hard disk drive as drive C.

The Floppy Disk, CD-ROM, or DVD-ROM Drive

Your computer may come with a floppy disk drive. The floppy disk drive accepts 3.5-inch floppy disks, and is read and write capable.

The CD-ROM drive is a read-only drive. It cannot be used to write data to a recordable compact disk. The CD-ROM drive can read data from CDs, including audio or video CDs. The DVD drive can read both DVD and CD disks. Your GoBook identifies the drive with the letter following the hard drive letter. If your hard drive is D, then the CD-ROM drive will be E. The media bay is located on the right side of your computer, as you are facing the display, and is accesable by sliding the two bay door latches, which release and open the door.

Inserting a CD-ROM or DVD-ROM Disk

1 Press the button on the front of the drive to open the disk tray and pull the tray open.

2 Place the disk on the tray, label side up.

3 Place the disk on the central spindle and press gently until the disk clicks into place.

4 Slide back the tray until it clicks shut.

Removing a CD-ROM or DVD-ROM Disk

1 Make sure the computer is not accessing the CD-ROM/DVD-ROM drive.

2 Press the button on the front of the drive and pull the tray all the way out.

3 Pick up the CD/DVD by the edges and remove the CD-ROM/DVD-ROM from the tray. Push the tray into the computer until it closes fully.

CAUTION When the computer is reading from a CD-ROM/DVD-ROM or Floppy disk drive, the indicator light for the drive will flash. Do not attempt to remove a disk while this light is active.

Changing your 'swappable' media bay device

1 Make sure the computer is not accessing the media bay drive.

2 Slide the door latches to release the media bay door.

3 Click the "Unplug or Eject" media bay icon on the right side of the taskbar.

4 Grasp the media bay device by the removal ribbon and pull straight out until it is clear from the slot.

5 Cick OK.

6 Re-insert the next media bay device by firmly pushing it back into the slot until it clicks into place.

Precautions for Handling CD-ROM/DVD-ROM Discs

Keep these precautions in mind when handling CD-ROM/DVD-ROM discs.

- Always hold the disc by the edges; avoid touching the surface of the disc.
- Use a clean, dry, cloth to remove dust, smudges, or fingerprints. Wipe from the center outward.
- Do not write on the surface of the disc.
- Extremes in temperature may damage discs. Store discs in a cool dry place.
- Do not use benzene, thinners, or cleaners with detergent. Only use CD-ROM/DVD-ROM cleaning kits.
- Do not bend or drop the discs.
- Do not place objects on top of discs.

CAUTION Do not insert any foreign objects into the disc tray. Do not force the tray to open or close manually. When not in use, keep the tray closed to prevent dust or dirt from entering the drive unit. If you experience difficulty when removing a CD/DVD disc, stretch a paper clip (or use a pin or a thin metal rod) and insert it into the emergency eject hole located on the front panel.

The CD/DVD disk tray should eject immediately. This procedure can also be used to remove a CD/DVD from the drive when the GoBook is powered off.

The PC Card Slot

The PC card slot can be used as an interface between your computer and a variety of communications devices, such as network adapters, SCSI adapters, fax/modems, or they can be used to provide additional data storage capacity. Your computer's PC Card slot supports Type I, II or III PC Cards, 32-bit CardBus cards, and Zoomed Video cards.

Installing a Card

1 The top side of a PC Card is usually identified with a label. Insert the card into the slot with the top up and the edge with pinhole contacts going in first. You will feel some resistance as the card slides into the back of the slot.

2 PC Cards require drivers, or a program that allows the operating system to use a specific device. Many drivers are included with Windows, but if not, you will be prompted to install the driver included with your card.

3 In Windows 98, the computer will beep twice to indicate successful installation. A single beep means that there was a problem recognizing the card. There is no beep with other versions of Windows software.

NOTE Please read the instructions included with individual PC Cards. Some cards may be inserted with power on, while others require that the computer be turned off.

Removing a PC Card

1 If a PC Card is in use, you must shut down the PC Card before removing it.

2 Click the PC Card icon on the right side of the taskbar, then click **Stop**.

3 When the Windows message appears, telling you that it is safe to remove the card, click OK.

4 Press the eject button on the PC Card slot to release the eject button (it is spring loaded and remains hidden until it is pressed).

4 Press the eject button again to release the PC Card.

Connecting to an External Monitor

The GoBook has a 15-Pin VGA monitor port to connect your computer to an external monitor.

Using the VGA monitor port for dual display

You may use an external monitor simultaneously with your GoBook's LCD. You may also use the external monitor only and disable the LCD, or use the LCD Only.

1 Locate the 15-pin VGA monitor port on the rear panel of your GoBook and connect the video signal cable from the external monitor to the monitor port.

2 Connect the monitor's power cable to a power outlet and turn on the monitor.

3 If the new monitor has not automatically been detected and is not displaying what appears on your GoBook's LCD screen, open the Control Panel.

4 Double-click **Display**. The Display Properties window opens.

5 Click the **Settings** tab.

6 Click the **Advanced** button.

7 Click the **S3DuoVue** tab. The screen shown at the right appears.

8 Select the CRT box to enable display on an external monitor.

9 You can also use the FN+F2 hot keys to cycle through the CRT, LCD, and CRT/LCD settings.

SECTION 3

Making Connections

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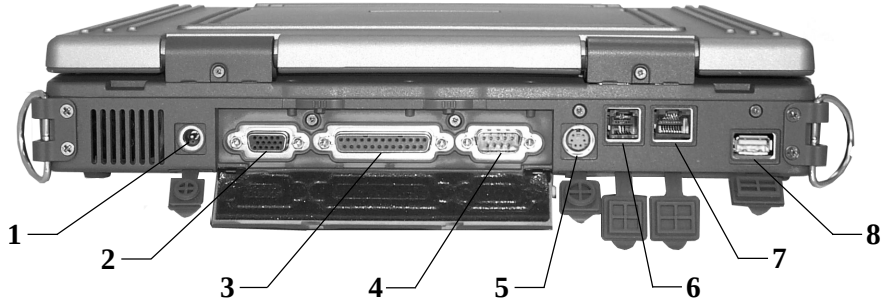
Right Side Connectors 38

Introduction

Your computer is equipped with a full array of ports and connectors, including standard input/output (I/O) ports for quickly and easily adding peripheral devices such as printers and monitors. Refer to documentation included with individual devices for details on connecting these devices to your computer. Along with the standard ports found on most computers, your computer may also include modem and LAN (optional) ports, offering advanced communications technology.

Rear Connectors

You will find the serial, parallel, and VGA ports under the port cover at the back of the computer.



1 DC-in Jack

Connect the DC power cable from the AC adapter to this jack.

2 VGA Out (External Video) Port

The 15-pin monitor port can connect your computer to an external monitor.

3 Parallel Port

Use the 25-pin parallel port to connect your computer to a parallel device such as a printer, or set up a direct connection between two computers. The parallel port supports the faster EPP (Enhanced Parallel Port) and ECP (Extended Capabilities Port) specifications, which can be enabled using the BIOS Setup Utility.

4 Serial Port

The 9-pin serial port can be used to connect your computer to serial devices such as a fax/modem or a serial mouse. This port is identified as COM1 and is 16550A compatible.

5 PS/2 Port

You can use the mini-DIN PS/2 port to connect your computer to a PS/2 device such as a PS/2 keyboard, or mouse.

6 Fax/modem RJ-11 Jack

The fax/modem can transmit data using the 56 Kbps V.90 protocol, and send and receive faxes at 14.4 Kbps. In some countries, local regulations may not permit the use of the fax/modem designed for this system. In this case, you may use a PCMCIA modem.

CAUTION Plug your modem into an analog telephone jack only. Most homes use analog lines. Do not use digital lines, such as the PBX and ISDN systems found in many offices. Digital lines may damage your modem.

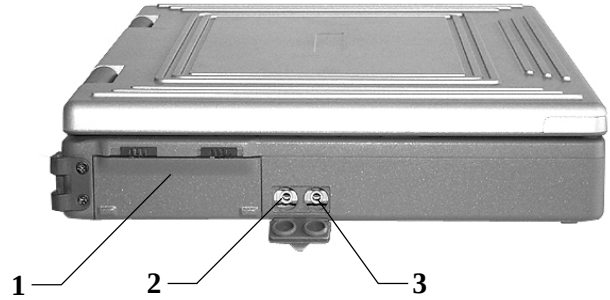
7 LAN RJ-45 Jack (optional)

With the built-in Ethernet LAN combo, you can make LAN connections without installing PC cards. Connection speed is 10/100 Mbps.

8 USB (Universal Serial Bus) Port

The Universal Serial Bus (USB) is the latest standard for attaching input devices, scanners, and other devices to a PC. USB devices can be chained together on a single cable. USB is 1.1 compliant.

Left Side Connectors



1 PC-Card Slot

Use this slot to connect PCMCIA-card devices.

2 Microphone Jack

Connect a microphone to this jack to record audio.

3 Audio-Out Jack

Connect external speakers or a stereo headset to this jack to listen to multimedia.

Right Side Connectors

1 Security Slot

Your computer has a Security Slot that can be used with a standard laptop locking device, such as a Kennsington Lock. You can connect the GoBook to a large object with the lock to prevent theft of your GoBook. See the documentation that comes with your lock for more information.

SECTION 4

If You Have a Wireless Modem

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Using Your Wireless Modem 46

Introduction

If your GoBook computer is equipped with a wireless modem, you must first register it with the appropriate network provider.

Before You Start: Register!

Before using your wireless modem you must sign up for service with a wireless network provider. When you register, you will need to furnish the network provider with your modem ID and the computer's serial number. This information is printed on a label located on the bottom of your GoBook computer.

Registering Your Wireless Modem

Air Card 300 (CDPD)

When the computer is booting, you may be asked if you want to make the Sierra Wireless AirCard 300 your primary network interface card. For this procedure, click Yes and run Wireless Expert.

NOTE Wireless Expert should start automatically.

Call your preferred cellular data provider and tell them the AirCard EID displayed on the first screen. Then follow the on-screen procedures.

Air Card 350 (CDPD)

When the computer is booting, you may be asked if you want to make the Sierra Wireless AirCard 300 your primary network interface card. For this procedure, click Yes and run Wireless Expert.

NOTE Wireless Expert should start automatically.

Call your preferred cellular data provider and tell them the AirCard EID displayed on the first screen. Then follow the on-screen procedures.

Nokia Card Phone 2.0 (GSM)

Eject the Nokia Card Phone 2.0 and insert your activated SIM card (note that SIM cards may have multiple features (voice, data, fax, SMS). Reinsert your Nokia Card Phone card and the GSM application will start automatically.

RIM 802D (DataTac) for Motient

All RIM 802D radios must be registered through Motient. For more information on registering your RIM 802D radio on the Motient network , visit their website at www.motient.com.

RIM 902M (Mobitex) for Cingular

Record the radio ID and the GoBook Serial number as labeled on the bottom of the GoBook or shipping box. With your company registration account information, call Cingular at 1-800-662-4839 and request registration. Run a reliable radio application to verify registration was successful.

Lucent Wireless LAN

Contact your local area network administrator to setup your computer for your network.

Cisco Aironet Wireless LAN

Contact your local area network administrator to setup your computer for your network.

> **CAUTION** Your modem generates radio frequency (RF) signals. Do not operate the radio modem before you have registered it with a network provider. The network will not accept a signal from an unregistered device. Unauthorized use of your radio modem may interfere with local business or government communications, resulting in fines or other legal action.

Wireless Modem LED Status

Air Card 300 (CDPD)

The wireless modem is powered ON after reboot, or resume, as indicated by the wireless modem LED being solid on. It can be turned off by right clicking on the PC Card icon in the system task tray, and selecting "Stop Sierra Wireless AirCard 300 CDPD". It can then be repowered by doing a suspend/resume or a reboot.

Air Card 350 (CDPD)

The wireless modem is powered on after reboot or resume as indicated by the wireless modem LED being solid on. It can be turned off by right clicking on the PC-Card icon in the system task tray, and selecting " Stop Sierra Wireless AirCard 350 CDPD ". It can then be repowered by doing a suspend/resume or a reboot.

Nokia Card Phone 2.0 (GSM)

The wireless modem is powered on when the modem card is inserted (after the SIM card has been inserted). The GSM application automatically starts when the modem card is inserted. To stop the application you must manually stop the card in the system tray using the PC Card icon (or applicable Windows 2000 icon). The GSM application will close when stopped. Otherwise, just minimize the application when not in use.

RIM 802D (DataTac) for Motient

The wireless modem LED has three states when a DataTac wireless modem is installed. They are:

- **Solid Green LED** – Wireless modem is ON, regardless of the state of the computer
- **Flashing Green LED** – Wireless modem is ON, and has a Message Waiting from the network
- **LED Off** – Wireless Modem is OFF. No power is supplied to the wireless modem

RIM 902M (Mobitex) for Cingular

The wireless modem LED has three states when a DataTac wireless modem is installed. They are:

- **Solid Green LED** – Wireless modem is ON, regardless of the state of the computer
- **Flashing Green LED** – Wireless modem is ON, and has a Message Waiting from the network
- **LED Off** – Wireless Modem is OFF. No power is supplied to the wireless modem

Lucent Wireless LAN

The wireless modem is powered ON after initial boot, reboot, or resume as indicated by the wireless modem LED being solid green. It can be turned off by right clicking the PC Card icon in the system task tray, then selecting “Stop Orinoco PC Card (3.3 and 5 volt)”. It can be repowered by doing a suspend/resume, or by rebooting the computer.

Cisco Wireless LAN

The wireless modem is powered ON after initial boot, reboot, or resume as indicated by the wireless modem LED being solid green. It can be turned off by right clicking the PC Card icon in the system task tray, then selecting "Stop Cisco Systems 340 Series Wireless LAN Adapter". It can be repowered by doing a suspend/resume, or by rebooting the computer.

Installing Your Wireless Modem Software

Installing the Software for Your Wireless Modem

Following are the installation procedures for installing the software for your wireless modem.

Air Card 300 (CDPD)

- Software comes pre-installed

Air Card 350 (CDPD)

- Software comes pre-installed

Nokia Card Phone 2.0 (GSM)

- Software comes pre-installed

RIM 802D (DataTac) for Motient

The RIM 802D radio is automatically installed through the Plug and Play feature of the Windows operating system. Once installed, the radio can be accessed as COM4.

1 To verify the radio is installed and functioning correctly, a hyperterminal session can be used to access RIM's built in diagnostic program.

2 To access this diagnostic program, create a hyterterminal session direct to COM4 with 8 data bits, no parity, 1stop bit, and hardware handshaking.

3 Once a connection has been established, type "menu" (lower case, without the quotes) and press enter. The RIM Diagnostic screen should appear.

This diagnostic program allows the user to send a short message either to yourself or another device on the network. For more information on how use the built-in diagnostics, visit the RIM website at www.rim.net.

RIM 902M (Mobitex) for Cingular

The RIM 902M radio is automatically installed through the Plug and Play feature of the Windows operating system. Once installed the radio can be accessed as COM4.

1 To verify the radio is installed and functioning correctly, a hyperterminal session can be used to access RIM's built in diagnostic program.

2 To access this diagnostic program, create a hyterterminal session direct to COM4 with 8 data bits, no parity, 1 stop bit, and hardware handshaking.

3 Once a connection has been established, type "menu" (lower case, without the quotes) and press enter. The RIM Diagnostic screen should appear.

This diagnostic program allows the user to send a short message either to yourself or another device on the network. For more information on how use the built-in diagnostics, visit the RIM website at www.rim.net.

Lucent Wireless LAN

- Driver comes pre-installed

Cisco Wireless LAN

- Driver comes pre-installed

Using Your Wireless Modem

Following are the procedures for using your wireless modem.

Air Card 300 (CDPD)

- Run Watcher from the desktop, or from the Start, Programs, SierraWireless, Aircard3xx menu.
- Verify signal strength is green and radio LED in ON.

Air Card 350 (CDPD)

- Run Watcher from the desktop, or from the Start, Programs, SierraWireless, Aircard3xx menu.
- Verify signal strength is green and radio LED in ON.

Nokia Card Phone 2.0 (GSM)

- Go to program – COM Port Changing tool under Start, Programs, NokiaCardPhone2.0 menu
- Click the radio button next to the COM port that you want your Nokia Card Phone 2.0 to reside on.
  1. Click OK.
  2. Click Yes to confirm.
  3. Click Yes to restart your computer.
- If necessary, activate the Nokia Monitor program running on the task bar and verify that you have at least one bar of signal strength in the upper left hand corner of the Monitor window.
- Read and correct any error messages displayed in prompt window (such as "Insert SIM card").
- Run the serial GSM radio application of your choice

RIM 802D (DataTac) for Motient

- With the exception of the built-in diagnostic program of the RIM radio, there are no standard applications shipped that allow the RIM 802D radio to be used for communication.

The RIM 802D radio understands two protocols: Native Control Language (NCL) and; RIM access protocol (RAP). To use the RIM 802D radio, an application that uses one of these protocols must be installed on the computer and configured to communicate on COM4.

RIM 902D (Mobitex) for Cingular

- With the exception of the built-in diagnostic program of the RIM radio, there are no standard applications shipped that allow the RIM 902M radio to be used for communication.

The RIM 902M radio understands two protocols: MASC, and; RIM access protocol (RAP). To use the RIM 902M radio, an application that uses one of these protocols must be installed on the computer and configured to communicate on COM4.

Lucent Wireless LAN

- Go to your preferred LAN application and run normally

Cisco Wireless LAN

- Go to your preferred LAN application and run normally

CAUTION While the radio is operating, its antenna must be at least 20 cm from all persons in order to comply with the FCC RF exposure limit. Radio (wireless modem) operators must make sure their radio unit is in compliance with these FCC regulations. See **Section 7 Optional Equipment and Accessories** for important information about vehicle-mounted antennas.

Modifications not expressly approved by Itronix could void the user's authority to operate the equipment.

SECTION 5

Power Management

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Power Management

Battery Calibration

The first time you use a battery, you should calibrate it. The calibration process empties and charges the battery. This allows the Windows battery gauge to accurately monitor battery status. To calibrate a battery, follow these steps:

1 Plug in the AC adapter.

2 Restart the computer. When the startup screen appears, just prior to the Windows logo screen, press the Del key to enter the BIOS Setup Utility.

3 In the BIOS Setup Utility, select Power Management Setup. Choose Battery Auto Calibration, then select Enabled.

NOTE Make sure that AC adapter & Battery are present.

4 Hit Enter when you are asked "Do you wish to do battery auto-learning? **(y/n)**" in the Battery Calibration dialog. This starts battery calibration.

Battery Calibration will take from 10 to 16 hours, depending on how much power the battery may already contain.

Monitoring Battery Power

There are two ways to monitor how much power the battery has left.

1 Click Start, Settings, Control Panel, Power Management (Power Options); then click the Power Meter tab.

2 Moving the cursor to the battery icon on the taskbar, without selecting anything, is the simplest way to check on battery power status. The status will show as a pop-up when you mouse-over the icon.

NOTE If you do not see the battery icon on the taskbar, enable it in Start, Settings, Control Panel, Power Management. Choose the Advanced tab and select "Always show icon on the taskbar."

Low Battery Alarms

How your computer responds to a low battery condition can be set by going to Start, Settings, Control Panel, Power Management, Alarms.

Two different power alarms can be enabled or disabled: the Low Battery Alarm, and the Critical Battery Alarm. Use the slidebar to set the power level at which the alarms are activated. Click on the Action button to choose whether the alarm sounds, displays a message, or both.

CAUTION When battery power is low, the battery LED indicator will flash, and the alarm will beep or display a warning on your screen. Take immediate action, such as saving files or connecting to the AC adapter, or data may be lost.

When the computer alerts you that the battery is low, immediately do one of the following:

- Connect the AC power adapter
- Save your work, and suspend to disk (Hibernate) by clicking the Power Button
- Save your work, then select Shut Down from the Start menu
- Turn off the computer (or suspend to disk) and replace the discharged battery with a charged battery (See Changing the Battery later in this section).

NOTE Do not restart the computer until you have connected to an AC adapter, or replaced the discharged battery with a charged battery.

Battery Charging

When you use the AC adapter to connect your GoBook to a power outlet, the internal battery will automatically begin to recharge. While the battery is charging, the Battery Charge LED indicator on the indicator panel will be active. When the battery is fully charged, the Battery Charge LED indicator will turn off.

If your computer is turned off, or suspended to RAM, a fully discharged battery will take about 4 hours to recharge. If your computer is turned on and is not in suspend mode, it will take about 6 hours to recharge the battery. Refer to the following table:

	Charging	Discharging
System On	6 - 7 hours	4 hours
System Off (suspend to RAM)	4 hours	—

NOTE A fully charged Li-Ion battery can run the GoBook for approximately 3 hours, or more.

Power Saving Modes

Adjust the default power management settings in the Power Management (Power Options) dialog box in the Control Panel. The Power Management (Power Options) dialog box allows you to set different actions to take when the computer is left idle for a certain amount of time.

Suspend Mode

There are several possible settings for suspend mode, which can be selected in the Power Management (Power Options) dialog box: You may suspend to RAM, suspend to disk (Hibernate), or disable suspend altogether, which is not recommended.

Suspend to RAM

In a suspend to RAM, the contents of your computer's memory are held intact, while practically all the rest of the components in your computer either turn off completely, or reduce power consumption to a minimum. In a Suspend to RAM, your computer remains active but with the minimum possible power consumption. Return the computer to full power by pressing any key. A fully-charged battery can maintain a Suspend to RAM for many hours.

Suspend to Disk (Hibernate)

Suspend to Disk (Hibernate) is similar to turning off the computer, except that the current state of the computer is copied to the hard disk as a special file. When the computer returns from suspend mode, the desktop appears with the same files and programs open as when the computer was suspended. Suspend to Disk (Hibernate) is very useful when you don't want to take the time to shut down all open programs one by one to shut off the computer, only to have to open the same programs and files the next time you use the computer. This mode is also called hibernation mode.

Suspend-to-Disk Partition

In order to Suspend to Disk, you must have a special suspend-to-disk partition on your hard disk drive. This partition is pre-installed on your computer. The pre-installed partition is large enough to store all system memory.

Initiating Suspend Mode

There are four ways to initiate suspend mode. The settings can be adjusted in the Power Management dialog box:

- The computer will automatically enter suspend mode when not used for a set period of time
- Selecting the Stand by button in the Shut Down Windows dialog box
- Pressing the power button (if enabled in power settings)
- Pressing the suspend function key (FN + F3)

Power Button Settings

The function of the power button can be set to Shut down, Stand by or Hibernate in the Power Management Properties dialog box in the Windows Control Panel. However, holding the power button down for more than four seconds will force a power off while operating under any situation, resulting in the loss of any unsaved information.

Power Saving Tips

- Avoid operating the fax/modem, or audio and video applications when using battery power. Operating a fax modem, video, or audio equipment increases the computer's power requirements.
- Decreasing monitor brightness can also save power. Decrease brightness by pushing FN + F6. Increase it by pushing FN + F7.

When to Replace the Battery

Over time, the battery's capacity gradually decreases. We recommend that you replace your battery when you notice that it begins to store significantly less charge.

Changing the Battery

Change the main battery pack as follows:

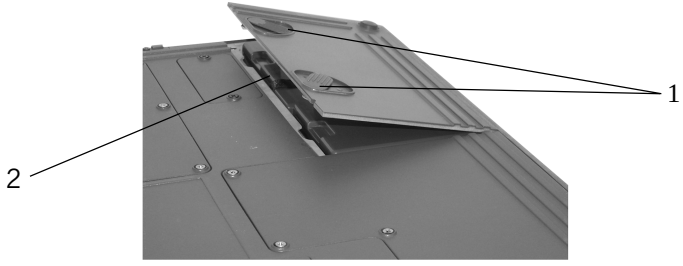
1 Turn off the computer.

2 Disconnect external power.

3 Close the display and turn the computer over.

4 Push in the latches on the battery door (1) while lifting the battery out of the compartment. Remove the battery (2).

5 Make sure the replacement battery is properly orientated. Insert the battery into the battery compartment. Check that the latches lock back into position.



Heat Considerations

The computer's processor has been specially designed to consume little power, and generates very little heat. However, working in a hot environment, or working for long periods may raise the temperature. Your computer takes the following steps to lower temperature:

1 The cooling fan is turned on. You may feel air coming from a vent near the right rear of the computer when this happens.

If the temperature continues to rise:

2 Processor activity is reduced. You may notice a slight loss of performance when this happens.

If the computer overheats:

3 The processor will stop functioning and the computer will shutdown.

SECTION 6

Customizing Your Bios Settings

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Using the BIOS Setup Utility

This chapter explains how to use the Setup Utility to modify the BIOS settings. The Setup Utility displays and allows modification of the GoBook components and the configuration of devices that are connected to it. This information is used to test and initialize components at start-up time and to make sure everything runs properly when the system is operating.

The BIOS is installed with a set of default values. You may be able to increase system performance by changing some of the timing values in the Setup Utility, but this can be limited by the kind of hardware you are using. In certain circumstances, the system may generate an error message that asks you to make changes to the CMOS settings using the Setup Utility. This happens when the system finds an error during the POST (Power On Self Test) that it carries out at startup.

If you are not sure how to configure the BIOS settings, we suggest that you select *Auto Configuration with Optimal Settings* on the Main Menu screen, then exit saving changes. This loads optimized default settings for normal use.

BIOS Setup Menu

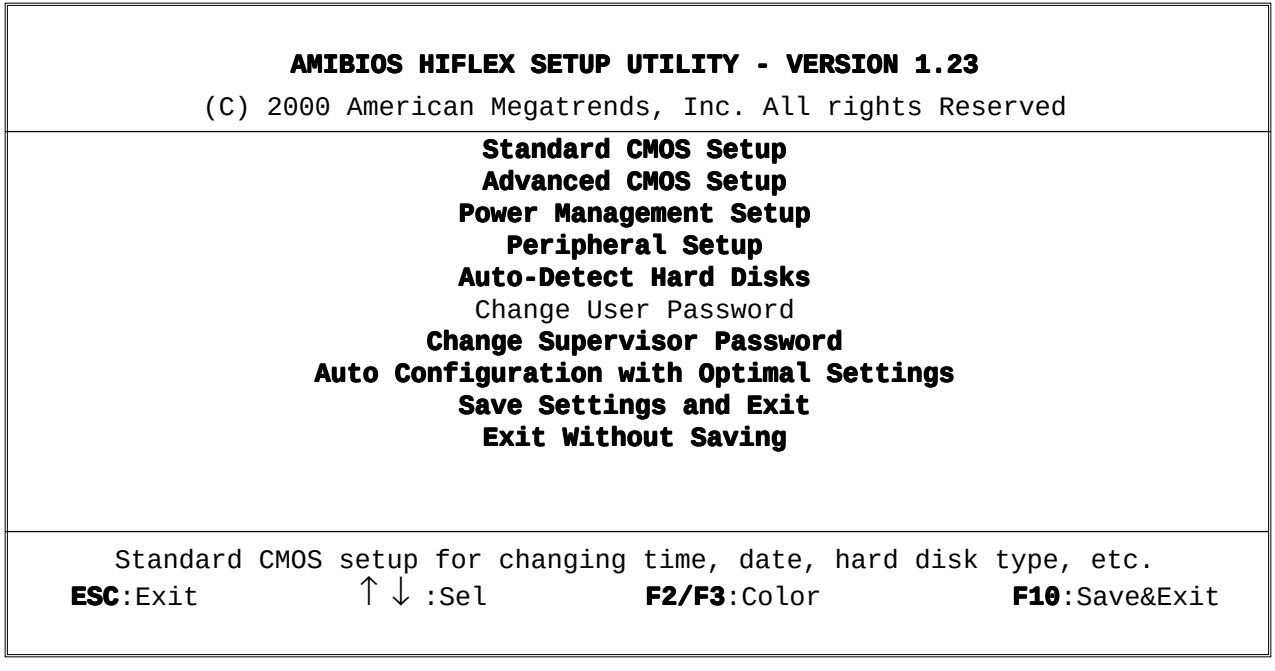
The BIOS Setup Utility allows you to configure your computer's basic settings. When you turn your computer on, the system reads this information to initialize the hardware so that it can operate correctly. Use the BIOS Setup Utility to change your computer's start-up configuration. For example, you can change the way the parallel port operates, or change the security and power management routines of your system.

Starting the BIOS Setup Utility

You can only start the Setup Utility shortly after the computer has been turned on. A prompt appears on the computer display that says *"Press DEL to run Setup."* When you see this prompt, press the **Delete** key and the system will start the Setup Utility and display the main menu of the utility.

The Main Menu

The Setup Utility main menu has seven main submenu options: Standard CMOS Setup, Advanced CMOS Setup, Power Management Setup, and Peripheral Setup, Auto-Detect Hard Disks, Change User Password and Change Supervisor Password. Save Settings and Exit, and Exit Without Saving are used to exit the Setup Utility.



Navigating and Entering Information in BIOS

Use the following keys to move between fields and to enter information:

Key	Function
Del	Starts the BIOS utility after turning on the computer.
ESC	Exits any submenu. If you wish to exit the BIOS utility without saving changes, go to the main menu, then press Esc.
Up, down arrow keys (↑↓)/Tab	Moves among selections.
PgUp PgDn	Use the PgUp, PgDn keys to modify a field. Use PgUp to increase a value, such as a date or number, and PgDn to decrease it. For other types of choices, such as "enabled," or "disabled," use either key to move between choices.
Enter	Makes a selection.
F2 or F3	Changes the color of the graphic display.
F10	Saves changes, then exits.

Standard CMOS Setup

The Standard CMOS Setup page of the Setup Utility has a list of fields that describe the basic configuration of your computer. CMOS is simply a type of random access memory, or RAM, used to store the basic configuration of the computer.

```
                    AMIBIOS SETUP - STANDARD CMOS SETUP
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Date (mm:dd:yy)    : Thurs, Nov. 2  2000                  Base Memory:640KB
Time (hh:mm:ss)    : 8:38:16                              Extd Memory:63MB

Drive A:           1.44 MB 3 1/2 in


                                                    LBA   Blk   PIO  32Bit
                   Type   Size  Cyln  Head  WPcom  Sec  Mode  Mode  Mode  Mode
Pri Master     :   Auto                                                    ON
Sec Master     :   Auto                                                    ON

Boot Sector Virus Protection  Disabled

Month:Jan - Dec                                    ESC:Exit    ↑ ↓:Sel
Day:  01 - 31                                      PgUp/PgDn:Modify
Year: 1901 - 2099                                  F2/F3:Color
```

Standard Feature Description

Field	Setting	Function
System Time		Use these fields to set the time and date. The time is displayed in 24-hour format. The date can be set from January 1, 1901 to December 31, 2099. The values set in these two fields take effect immediately.
Floppy Drive A	Not Installed 1.44 MB (3 1/2").	Indicates if a floppy disk drive is installed. Default is 1.44 MB (3 1/2")
Type		Shows type of system installed including the following options: • (Pri. Master) Auto, User, Not Installed • (Sec. Master) Auto, ATAPI CD-ROM, Not Installed
Pri. Master	Auto User Not Installed	The default setting is Auto. Auto lets the system automatically read setup information from the device.
Sec. Master	Auto ATAPI CD-ROM Not Installed	The default setting is Auto. Auto lets the system automatically read setup information from the device. When set to Auto, the BIOS will automatically detect hard disk capacity.
System Memory; Extended Memory		These fields display the amount of conventional memory and extended memory detected by the system during bootup. They are display only fields.

Primary/Secondary Master and Slave Settings

Size	Displays the hard disk capacity.
Cylinders	Displays the number of cylinders on the hard disk drive.
Heads	Displays the number of heads per cylinder on the hard disk drive.
LBA Mode	LBA (Logical Block Addressing) mode is used to support IDE hard disks larger than 504 MB. LBA support is required for compatibility with the FAT32 system. Only some hard disk drives support LBA mode. The default setting depends on the hard disk drive type.
Blk Mode	Enables or disables block mode, which allows multi-sector transfer of data. Only some hard drives support block mode.
PIO Mode	PIO (Programmed Input/Output) mode refers to data transfer method used by IDE drives. These modes use the CPU's registers for data transfer in contrast with DMA (Direct Memory Access), which transfers directly between main memory and the peripheral device. The default value Auto lets the system automatically read setup information it needs for setup from hard disk drive. Five explicit values, 0 to 4, are also possible.
32Bit Mode	Enables hard drive 32-bit data transfer. Only some hard disk controllers support 32Bit mode.

CAUTION Before attempting to configure a hard disk drive, make sure you have the configuration information supplied by the manufacturer of your hard drive. Incorrect settings can result in your system not recognizing the installed hard disk.

Advanced CMOS Setup

AMIBIOS SETUP - ADVANCED CMOS SETUP

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BootUp Sequence	**C:, A:, CDROM**	**Available Options:**
S.M.A.R.T. for Hard Disks	**Enabled**	A:, C:, CDROM
BootUp Num-Lock	**Off**	C:, A:, CDROM
Display Expansion Mode	**Enabled**	CDROM, A:, C:
Password Check	**Setup**	

ESC:Exit ↑ ↓ :Sel
PgUp/PgDn:Modify
F2/F3:Color

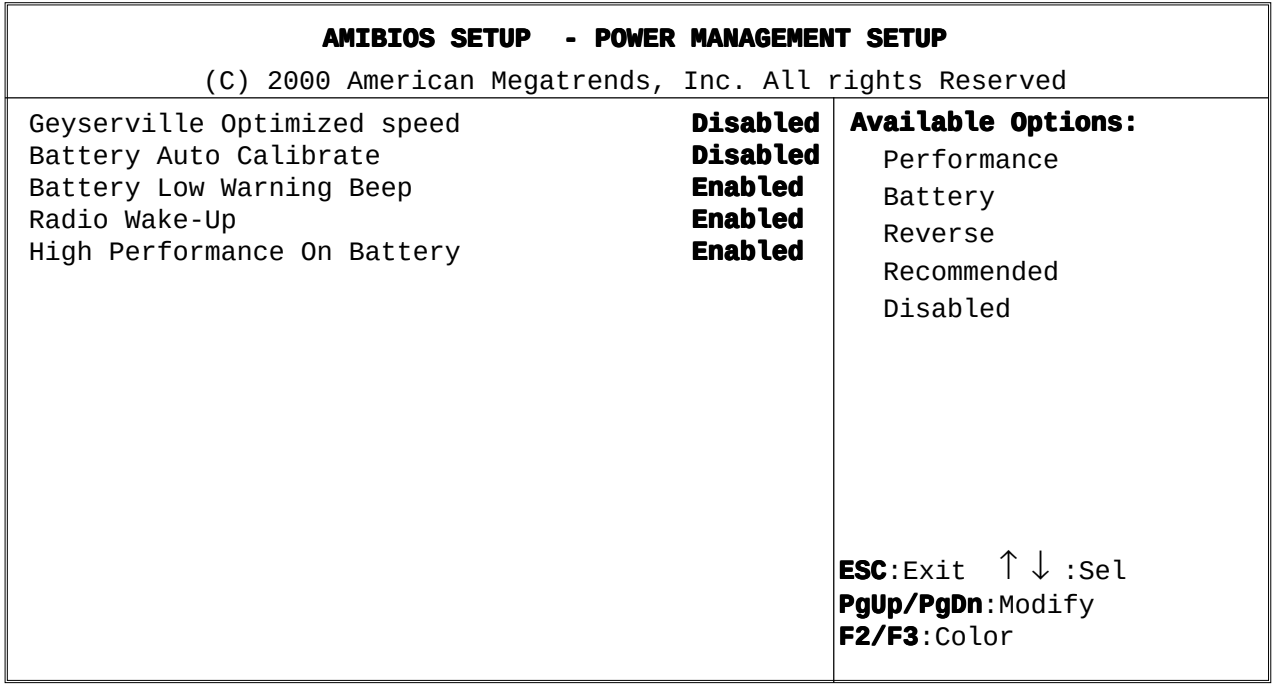
Advanced CMOS Setup Description

Field	Setting	Function
Bootup Sequence	A; C; CDROM	Use this field to set the devices from which the system should boot in order of priority. The default value is C; A; CDROM, which means that the computer will attempt to boot from the hard disk drive, then the floppy drive, then the CD-ROM.
	C; A; CDROM	The computer will boot from the FDD, then the HDD, then the CD-ROM. The BIOS will auto detect a floppy disk in boot device A:.
	CDROM; A; C	The computer will boot from the CD-ROM, then the FDD, then the HDD.
S.M.A.R.T. for Hard	Disabled Enabled	The S.M.A.R.T. (Self-Monitoring, Analysis, and Disks Reporting Technology) system is a diagnostics technology that monitors and predicts device performance. The disk drive software monitors the internal performance of the motors, media, heads, and electronics of the drive. Only S.M.A.R.T. Hard Disks are supported. The default is Enabled.
Bootup Num-Lock	Off On	Use this field to initially disable the NumLock feature of the internal keyboard when the GoBook starts. The default is Off.
Display Expansion Mode	Enabled Disabled	If you are using DOS or a 640 x 480 resolution to run windows, the display will not fill the entire screen. Enable this mode to expand the display to the entire screen.
Password Check	Setup	The default value is Setup, which specifies that a password is only required to enter the Setup Utility.
	Always	If Always is selected, the password is required when the system is booted up or resuming from a suspend-to-disk.

Power Management

This section of the BIOS manages power settings in operating systems other than Windows 98 or above, or operating systems using ACPI power management. In Windows 98 or above, power management is controlled through the Power Management window in My Computer, and BIOS power management settings have NO effect. In other operating systems that use ACPI power management, BIOS settings likewise have no effect.

To save power, you may select the time the computer may idle before going into standby, or a low power state, then into suspend mode. (See **Chapter 5 Power Management** for an introduction to suspend modes.)



Advanced CMOS Setup Description

Field	Setting	Function
Geyserville Optimized Speed	N/A	Geyserville Optimized Speed enables the system to reduce the CPU speed when the battery is in use to conserve power.
	Battery	The computer will utilize Geyserville Optimized Speed Technology when the battery is in use. This technology lowers the CPU clock speed to save power.
	Performance	The computer always uses optimal CPU clock speed, and does not utilize Geyserville Optimized Speed Technology.
	Reverse	When the battery is in use, the computer will utilize Geyserville Optimized Speed. When the computer is running on AC power, it will run in Performance mode.
Battery Auto Calibration	Disabled	Battery calibration is disabled.
	Enabled	Battery calibration is enabled.
Battery Low Warning Beep	Disabled	Battery low warning beep disabled.
	Enabled	Battery low warning beep enabled (beeps at 7% remaining).
Radio Wake-Up	Enabled	The internal radio is allowed to resume the unit.
	Disabled	The internal radio is not allowed to resume the unit.
High Performance On Battery	Enabled	The CPU clock runs at full speed on battery power.
	Disabled	The CPU clock is slowed to 3/4 speed to conserve battery life.

Peripheral Setup

Settings on this page allow you to change port configurations.

AMIBIOS SETUP - PERIPHERAL SETUP

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Com1 Serial Port	**Auto**	**Available Options:**
LPT Port	**378**	Auto
LPT Extended Mode	**Normal**	Disabled
EPP Version	N/A	
Parallel Port ECP DMA Channel	N/A	

ESC:Exit ↑ ↓ :Sel
PgUp/PgDn:Modify
F2/F3:Color

Peripheral Setup Description

Field	Setting	Function
COM 1 Port	Auto	COM 1 is assigned to the serial port located at the rear of your GoBook. Set this field to Auto to enable the system to automatically assign an I/O address and interrupt to the port.
	Disabled	Disables COM 1. You may need to remove this port in Windows to release the IRQ resource for use by other devices.
LPT Port	Auto	Set this field to Auto, so that the system automatically assigns an I/O address and interrupt. You can also choose a specific I/O address.
	Disabled	Disables the LPT port.
	378	This is the default adress setting.
	278	Optional address setting.
	3BC	Optional address setting.

Peripheral Setup Description (Cont.)

Field	Setting	Function
LPT Extended Mode	Normal EPP ECP	This field makes the parallel port comply with one of the different kinds of parallel communications: Normal, Extended Capabilities Port (ECP), and Enhanced Parallel Port (EPP). Normal , ECP and EPP are bi-directional modes, allowing both data input and output. ECP and EPP modes are only supported with EPP and ECP aware peripherals.
EPP Version	1.9 1.7	Use this field to set which version of EPP to use, if EPP has been selected as the LPT Extended Mode.
LPT Port DMA Channel	0 1 3	Use this field to select the DMA channel to be used when the LPT Extended Mode is ECP. The available channels are 0, 1, and 3.

Auto-Detect Hard Disk

When Auto-Detect Hard Disk is selected, the BIOS will automatically detect Pri. Master, and Sec. Slave settings.

NOTE If you Auto-Detect your Hard Disk Drive with your media bay drive empty, you will need to reset the Sec. Master to Auto On to use the CD-ROM (or other media devices).

Change Supervisor Password

A supervisor password must be set before a lower-level user password can be set. After selecting Change Supervisor Password, press Enter. You will be prompted for the new password, and then again to verify it. Type in six or fewer keystrokes. If you make an error, press Esc to start over.

Change User Password

With a User password, you can enter the Setup Utility and change or remove the User password, but you cannot enter the Setup Utility and change or remove the Supervisor password, nor enable diskette access if it has been disabled.

Auto Configuration with Optimal Settings

The Auto Configuration menu resets the computer to default values. The Auto Detect Hard Disks likewise helps users to configure their systems quickly. When you see the following prompt, choose Y to reset the computer to default values.

```
Load high performance settings (y/n)
```

Exiting and Saving

Save Settings and Exit

Select this option to save changes to the field values, and restart the computer using the new values. (Pressing F10 from any of the menu screens also allows you to save settings and exit.)

Exit Without Saving

Select this option to discard any changes you have made to the field values, and restart the computer using the old values.

SECTION 7

Optional Equipment and Accessories

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Vehicle Adapter

The Vehicle Adapter is an optional device that supplies power from the vehicle battery to operate the computer and charge the battery installed in the unit. It typically connects to the vehicle battery using the cigarette lighter socket.

To prevent possible damage to the battery, the system will not allow the battery to charge at extreme temperatures. Be aware of the following charging characteristics, especially if the computer is left unattended in a closed vehicle.

Temperature	Charging Activity
<5°C (<41°F)	Battery will not charge

To connect the vehicle adapter

1 Insert the vehicle adapter's power cord into the power port on the back of the computer.

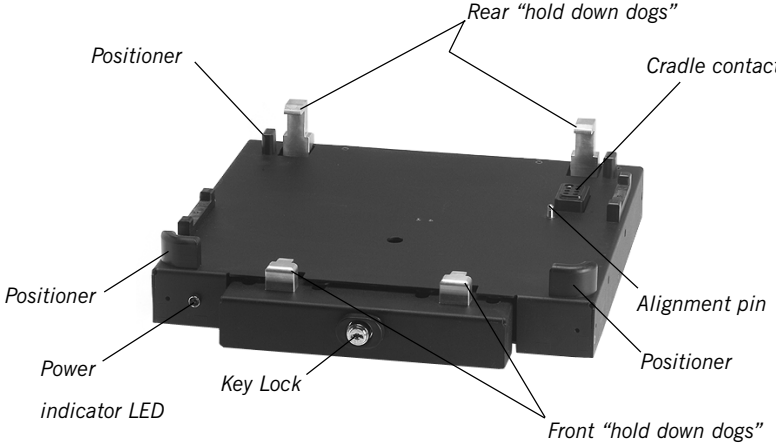
2 Insert the cigarette lighter adapter into the vehicle's cigarette lighter socket, turning it slightly to make a good connection.

The power light illuminates to indicate that current is reaching the vehicle adapter. When you connect the vehicle adapter, it automatically begins charging the computer's battery. At moderate temperatures, around 21°C (70ºF), the battery will be fully charged in approximately four to five hours. Under extremely cold or hot temperatures, or if the system is on, however, it will take longer to charge the battery (up to seven hours).

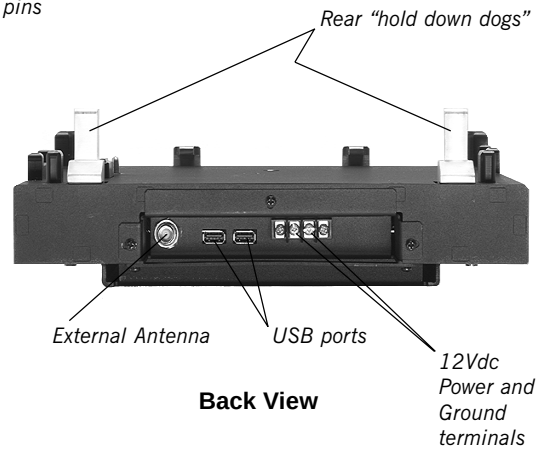
Vehicle Cradle

The vehicle cradle is a vehicle-based docking station designed to safely secure the computer in the vehicle. A standard key lock located on the front of the cradle locks the computer onto the cradle for security purposes. You can use the vehicle cradle to:

- Charge batteries
- Communicate with other devices
- External RF antenna



Front View



Back View

PRECAUTIONS

- There are no user-replaceable parts within the vehicle cradle, so do not open the cradle case. The vehicle cradle is internally protected. It resets automatically if there is a power fault.
- Do not use the vehicle cradle to charge the computer battery overnight. Turn off the vehicle cradle at the end of each work day to prevent draining the voltage in your vehicle's battery below starting levels.

Charging Batteries

The vehicle cradle is designed to charge the computer's battery with voltage from the vehicle battery while you are traveling between customer jobs. Follow the procedure below to charge a battery.

To charge a battery installed in the computer

1 Place the computer onto the vehicle cradle, making sure it is securely latched.

2 Charging begins automatically.

Important

- A temperature of 0ºC to +60ºC (32ºF to +140ºF) is recommended when charging batteries with the vehicle cradle. Batteries may not charge successfully outside this temperature range.
- If you charge your battery daily, rely on the gas gauge reading to determine battery capacity. The gas gauge displayed by the Power Meter may show that the battery is full, but charging continues. This happens becuase the charging process is trying to put a little more capacity into the battery. External power can be removed at this time since the battery is virtually full.
- If your battery is new or has not been used for several weeks, rely on the indicator light to determine when the battery is fully charged. The gas gauge is unreliable in these cases; it may read 100 percent, but the actual capacity is only 10 percent.

Communicating with Other Devices

Connect the external device to either of the USB ports on the back of the cradle, and then place the GoBook onto the vehicle cradle. You can install or remove the computer from the vehicle cradle without connecting or disconnecting the cables.

External Antennas

An external RF antenna also can be connected to the cradle using the TNC RF connector on the back of the vehicle cradle. FCC regulations require that users of vehicle-mounted antennas must use only antennas authorized for use with the GoBook in order to meet FCC RF exposure limits. Please contact your organizations's help desk for a list of approved vehicle-mounted antennas. For mounting installation and/or mounting instructions for these types of antennas, see the instructions that accompany each antenna.

RF Antenna Placement

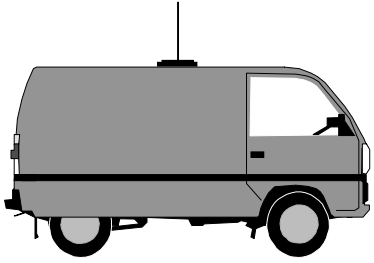
WARNING Improper installation and/or operating configurations of permanent and magnetic vehicle-mounted antennas may cause FCC RF exposure limits to be exceeded. Vehicle-mounted antennas must be placed at least 20 cm from operators and bystanders.

Placement of a vehicle-mounted antenna

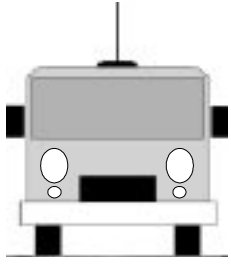
1 Measure and identify an area 20 cm (8 inches) in from the edges of the vehicle roof (see diagram below).

2 Place the antenna within that area.

To maximize RF performance, position the antenna in the center of the vehicle roof.



Side View



Front View

Cleaning or Replacing Cradle Contact Pins

The contact pins on the vehicle cradle are exposed to contamination and stress when the computer is installed and removed from the cradle during normal daily operation. The pins were designed to be cleaned or replaced as required.

If the pins become dirty, they can be removed and cleaned with an electrical contact cleaner or replaced. The power and ground pins are pins 3 and 8 respectively. When charging problems are encountered and replacement pins are not available, other pins in the contact assembly can be used to field fix the unit until replacement parts are available.

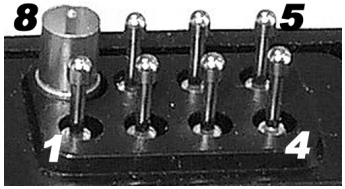
To clean or replace the cradle contact pins

1 Hold down the protective plastic cover.

2 Grasp a pin and pull straight up, being careful not to bend it.

3 Clean the pin with electrical contact cleaner and reinstall it into the cradle contact assembly.

If a pin is bent or cannot be cleaned, contact your support desk to obtain a replacement pin.



NOTE Pin 8 is not user replaceable. Contact your support desk for information about replacing this RF connector.

Surge Protection

A large number of computer and high technology equipment damage is directly related to AC power and telephone line problems. These problems can include surges, spikes, noise, interference, and weather-related problems, which in turn can cause glitches, hang-ups, crashes, performance slow downs, and down time with computer equipment. The market is flooded with hundreds of AC power line surge suppressors advertising high performance surge protection; only a few of them actually provide adequate protection.

This section provides guidelines for selecting a quality surge suppressor to be used with your GoBook, and it helps identify a few sources for products with acceptable performance.

Selecting the Right Surge Protection

Consider the level of quality you need when selecting a surge suppressor. This depends on factors such as surge environment, the type of equipment to be protected, and the quality of the electrical wiring and service.

Surge Environment

Surge environment refers to the damage potential from electrical surges in a particular geographical area. A high quality suppressor should be used if there is frequent lightening activity in the area and the location service is fed by overhead utility poles. An example of a high surge environment would be Florida; a low surge environment might be New York.

Type of Equipment to be Protected

If the computer is equipped with a modem, the modem should also be surge protected. Protecting the power line without protecting the modem line provides only partial protection.

Quality of Electrical Wiring and Service

Wiring should be up to current NEC standards and have verified good AC grounds. It is important that your computer system be plugged into a grounded AC outlet when charging and that all peripherals connected to your system reference the same AC ground.

Selecting the Right Equipment

There are a number of companies that sell quality surge suppressors such as Sutton Designs, APC, and Panamax. When you are looking for a surge suppressor, consider these things.

- Expect to pay at least $50 for a good quality surge suppressor.
- The surge suppressor should be a UL 1449, 497, and 1283 listed for surge suppression, modem surge protection, and RFI/EMI noise filtering respectively.
- The surge suppressor should have diagnostic LEDs that verify good AC ground, proper wiring, and proper surge operation. Lighted on/off switches are not recommended since they can produce electrical noise.
- The Joule ratings should be a minimum of 480 Joules for the AC surge circuit.
- The Joule ratings should be a minimum of 240 Joules for the modem.
- The modem surge circuit should present low capacitance to the modem line or it will slow the transmission rate. Capacitance should be specified at less than 50 picofarads.
- Quality surge suppressor manufacturers generally offer a lifetime warranty.
- Consider obtaining a protected equipment coverage policy which insures the equipment in the event of surge damage.
- The devices that will be attached to the computer also need to be surge protected.

SECTION 8

Maintenance and Storage

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Computer Maintenance and Storage 88
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Introduction

The GoBook is ruggedized and weather resistant. Handle it with the normal care required by any sophisticated electronic equipment, and the computer will provide reliable service even under harsh field conditions.

Follow the guidelines below to care for your unit.

Touch Screen Care

CAUTION

- Always use an approved stylus.
- Never use sharp, hard, or abrasive implements on the touch screen such as ball point pens, pencils, or keys. They could damage the screen.
- To clean the touch screen panel, apply a household glass cleaner to a soft, clean, dry cloth and wipe the screen.

Hard Drive Care and Handling

There are two hard drive options for the GoBook: a shock-mounted 2.5-inch hard drive and a PC Card Type III hard drive. All hard drives contain media for data storage in the form of a rotating disk, read/write head(s), a motor, and electronics for interfacing and control. Each hard drive type can be susceptible to damage from severe shock and other stressful environmental impacts. The degree of susceptibility to damage is directly related to the individual hard drive and mounting system employed.

When reading or writing to the hard disk, the head is “flying” on a thin layer of air, micro-inches above the disk. A shock can cause the read/write head to contact the spinning disk, resulting in immediate loss of stored data and possible physical damage to the disk. It could also create loose debris in the drive enclosure that may cause progressive damage over time.

To reduce exposure to high operating shocks, the GoBook uses power modes for the hard drive that prevent the read/write heads from being positioned over the disk when it is not being used: idle mode and standby mode.

You can reduce the risk of damage to the hard drive and increase the reliability of the hard drive and data integrity by following the recommendations below.

Internal Hard Drives

- Do not intentionally drop the computer. The unit is designed to withstand the day to day rigors of the mobile environment and provide years of reliable service. The useful life of the product can be enhanced by not intentionally abusing it.
- Whenever possible suspend the unit by pressing FN+F3 before moving it from one location to another. This will unload the read/write heads and spin down the disk.

- Maintain the environmental seal of the computer by keeping all the external access doors closed and latched. Also avoid exposing the unit to extreme temperatures or moisture when the doors are open.
- Periodically backup or archive important files and data.

External PC Card Hard Drives

Each PC Card hard drive manufacturer provides specific guidelines for the care and handling of the product. In addition, follow these recommendations:

- When the PC Card hard drive is not inserted in a PC Card socket, store the hard drive in a protective carrying case. This will help protect it from inadvertent shocks.
- Always use care when handling the hard drive. Do not drop, bend, flex, or crush it.
- Avoid exposing the PC Card hard drive to extreme moisture, heat, or sunlight.
- Keep all debris out of the connector to ensure good electrical connections.
- There are no user repairable parts in the PC Card hard drive. Do not attempt to disassemble any part of the hard drive. The warranty will be voided if drive seals are broken or screws have been removed.
- Periodically backup or archive important files and data.

If you encounter or suspect hard drive problems, you can run SCANDISK, which provides a description of file usage and syntax on selected drives. SCANDISK will identify any failures on the hard drive and prompt you for corrective action based on selected options. If problems are found, it may be necessary to run SCANDISK several times to determine the extent and severity of the problem. SCANDISK may discover multiple bad clusters. Up to ten bad clusters can be allowed before returning the computer for service. After you have run SCANDISK and the problem persists or becomes more severe, or if SCANDISK finds more than ten bad clusters, return the unit for service.

Battery Maintenance and Storage

Maintaining Batteries

Follow these guidelines to maintain performance of Lithium-Ion (Li-on) batteries.

- Avoid exposing batteries to extremely hot or cold temperatures for long periods. To prevent possible damage to the battery, the GoBook does not allow the battery to charge if the internal temperature of the battery gets too low (< 5°C or < 41°F) or too high (> 50°C or > 122°F).
- Charge the battery nightly where the temperature will remain around 20°C (68°F).
- Re-calibrate your battery when your battery performance degrades.

Storing Batteries

- Store the battery within the recommended temperature range: 10°C to 30°C (50°F to 86°F).
- Unused or stored batteries can lose power over time. When you install a battery that has not been used for awhile, connect external power to the computer and charge the battery.
- After storage, battery calibration may increase its capacity.

Computer Maintenance and Storage

Maintaining Your Computer

Follow these guidelines to help maintain the condition and performance of your computer.

- Turn off the computer when you are not using it.
- Charge the batteries daily or whenever their capacity is low.
- Operate the computer within the recommended temperature ranges of 0°C to +60°C (32°F to +140°F).

Care and Cleaning

Physical Inspection Periodically inspect the computer and accessories for wear, damage, loose or missing parts. Identifying and correcting potential problems early can help reduce the need to return the unit for service.

Outside Case Like all tools, the outside of the computer will get dirty with use. The case is made of painted Magnesium and polycarbonate blend (plastic) doors and covers. These areas can be cleaned with a solution of one part Formula 409™ and one part water. Follow the procedure below.

To clean the outside case

1 Disconnect external power and turn off the computer.

2 Remove the battery.

3 Using a soft, dry cloth (do not use paper products because they can scratch the surface), add a small amount of cleaning solution to the cloth and clean the computer case.

4 Wipe off any excess liquid with a soft cloth.

5 Reinstall the battery.

Display Periodically inspect the display to make sure the contrast and brightness functions are operating properly and that all pixels are operational.

To clean your touch screen

To clean the display assembly, use the same cleaning solution and procedure described earlier for the outside case. In some cases, you can use a small amount of isopropyl alcohol to remove streaks or smears. Use a soft, clean cloth to clean the display. Do not use paper products because they can scratch the screen.

External Power Connector The external power connector may sometimes be exposed to moisture and/or contamination causing an unreliable connection to the external power source.

Clean the connector using a cotton swab dipped in isopropyl alcohol.

RJ-11/ RJ-45 / PS2 / USB Connectors Make sure these connectors are operating properly. During normal use, the connector pins can get dirty or become broken, bent, or pushed out of place. Clean the connector with a cotton swab dipped in isopropyl alcohol.

Keyboard Check all keys to make sure they are working properly. To clean the keyboard, use the same cleaning solution and procedure described above for the outside case.

If keyboard problems persist, the keyboard might need to be replaced. This can be done without returning the unit for service. Contact your local support person for more information.

I/O Ports Make sure the video, serial, and parallel ports are operating properly. Periodically inspect the ports for damage or contamination, and make sure the cover is attached to the computer. The I/O cover can be replaced without returning the unit for service. Contact your local support person for more information.

PC Card Door and Connector Whenever possible, make sure this door is closed and latched properly. When the PC Card door is closed, it provides a watertight seal for the PC Card socket. Shield the area from all contaminants such as liquids, rain, snow, and dust when the door is open.

Make sure the PC Card connector is operating properly by reading from or writing to a PC Card.

Cradle Contacts The cradle contacts on the bottom of the computer may get dirty with daily use. Pins can be cleaned with a cotton swab dipped in isopropyl alcohol.

Storing Your Computer

You can store the GoBook for approximately 7 - 10 days without losing data as long as the battery is fully charged to begin with.

If you plan to store the computer for more than 7 - 10 days, follow these storage guidelines.

To store the computer

1 Files and data should be saved before storing the computer.

Contact your organization's help desk about the procedure for backing up files or data.

2 Exit all applications and use the appropriate procedure to exit from your operating system.

3 Turn off the computer.

4 Remove the battery from the unit and store it in a dry place.

5 Store the computer within the recommended temperature ranges of -40°C to +75°C (-40°F to +167°F).

If you use PC cards, refer to the manufacturer's instructions you received with the card for storage and care information.

APPENDIX A

Error Messages

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Introduction

The following are possible error and warning messages you may encounter while operating the GoBook computer. The messages described 1in this section are listed below.

Error and warning messages are generated by several different sources including:

- Power On Self Test (POST)
- MS-DOS
- Windows
- Applications

POST Messages

When the GoBook computer restarts, it tests its hardware components. This test is called the Power On Self Test (POST). If the system finds an error during this test, it displays an error message.

Some POST errors can occur before anything can be displayed on the screen. In this case, the computer issues a series of beeps, then stops working. This type of error indicates a serious hardware problem, and you should contact your supervisor or your organization's help desk.

The most common POST error messages are listed next along with solutions you can try.

BIOS ROM bad checksum

An expansion card has a bad ROM checksum. The expansion card may need to be replaced. Contact your supervisor or your organization's help desk.

-Disk not found

-FATAL: CMOS RAM test failed

-FATAL: DMA controller faulty

-FATAL: Faulty DMA page registers

-FATAL: Faulty refresh circuit

-FATAL: Interrupt controller failed

-FATAL: No RAM found

-FATAL: No video display found

-FATAL: RAM error at location xxxxxx: Wrote: xx Read: xx

-FATAL: ROM checksum incorrect

Restart the computer by pressing the power button for at least eight seconds. If the problem persists, contact your supervisor or your organization's help desk.

Fixed disk controller failure

Disk controller is not responding. Report this error to your supervisor or your organization's help desk.

Fixed disk failure

Report this error to your supervisor or your organization's help desk.

Floppy disk fault - insert valid boot disk and press any key

If no floppy drive is present, run the System Configuration Utility (SCU) and disable the floppy disk controller. (See **Section 6 Customizing Your Bios Settings**, for more information about the SCU.)

Gate A20 failure

Hardware failure. Report this error to your supervisor or your organization's help desk.

-Hard disk boot sector invalid

-Hard disk failed

Restart the computer by pressing the power button for at least eight seconds. If the problem persists, contact your supervisor or your organization's help desk.

-Insert boot-disk and press any key

-Internal cache test failed

Restart the computer by pressing the power button for at least eight seconds. If the problem persists, contact your supervisor or your organization's help desk.

-Keyboard clock line failure

-Keyboard controller failure

-Keyboard data line failure

Reboot the computer by pressing CTRL+ALT+DEL. If the message persists, and the keyboard is not usable, report this error to your supervisor or your organization's help desk.

-Keyboard failure

-Keyboard stuck key failure

-Memory failure at AAAAAAAA, read XX expected YY

Restart the computer by pressing the power button for at least eight seconds. If the problem persists, contact your supervisor or your organization's help desk.

No boot device available — press F1 to retry boot

Reboot the computer by pressing CTRL+ALT+DEL. If the problem persists, the hard disk may need to be replaced. Report this error to your supervisor or your organization's help desk.

No boot sector on hard disk

Data corrupted on hard disk. Restore hard disk data by rebooting from CD-ROM.

No timer tick interrupt

Restart the computer by pressing the power button for at least eight seconds. If the problem persists, contact your supervisor or your organization's help desk.

Non-system disk or disk error — Replace and press any key to continue

Remove the non-bootable PC memory card or floppy disk and press any key to reboot.

Non-system disk - insert boot disk and press any key

Restart the computer by pressing the power button for at least eight seconds. If the problem persists, contact your supervisor or your organization's help desk.

Press the F1 key to continue

This message indicates that an error was found during POST. Pressing the F1 key allows the system to attempt to boot.

Shutdown failure

Reboot the computer by pressing CTRL+ALT+DEL. If the message persists, contact your supervisor or your organization's help desk.

Unexpected interrupt in protected mode

Reboot the computer by pressing CTRL+ALT+DEL. If the message persists, contact your supervisor or your organization's help desk.

WARNING! Boot sector 0 has changed

The boot sector of the hard drive has been modified. This message also may be displayed when booting from drive C after booting from another device. Pressing F1 will allow the system to continue to boot. If this problem persists, contact your organization's help desk.

-WARNING: CMOS checksum invalid

-WARNING: CMOS failure

Run the BIOS Setup Utility to set the system configuration. If the problem persists, contact your organization's help desk. (See **Section 6 Customizing Your BIOS Settings,** for more information about the BIOS Setup Utility).

-WARNING: Floppy controller failed

-WARNING: Floppy disk track 0 failed

Restart the computer by pressing the power button for at least eight seconds. If the problem persists, contact your supervisor or your organization's help desk.

WARNING: Floppy information invalid

Run the System Configuration Utility (SCU) to set the system configuration. If the problem persists, contact your organization's help desk. (See **Section 6 Customizing Your BIOS Settings,** for more information about the BIOS Setup Utility).

-WARNING: Keyboard controller failure

-WARNING: Keyboard failure

Reboot the computer by pressing CTRL+ALT+DEL. If the problem persists, the keyboard is not usable; contact your organization's help desk.

-WARNING: No bootable floppy drive 0 installed

-WARNING: No interrupts from timer 0

Restart the computer by pressing the power button for at least eight seconds. If the problem persists, contact your supervisor or your organization's help desk.

WARNING: Time/date corrupt

Run the BIOS Setup Utility to set the time of day and date. (See **Section 6 Customizing Your BIOS Settings,** for more information about the BIOS Setup Utility).

WARNING: Unexpected amount of memory

Run the BIOS Setup Utility to reinitialize the system configuration. If the problem persists, contact your organization's help desk. (See **Section 6 Customizing Your BIOS Settings,** for more information about the BIOS Setup Utility).

xxxxxh Option ROM checksum failure where xxxxxh is the starting address of the option ROM

An expansion board contains a defective ROM. Try restarting the computer by pressing CTRL+ALT+DEL. If the problem persists, the expansion board may need to be replaced. Report this error to your supervisor or your organization's help desk.

MS-DOS Messages

The MS-DOS operating system may display a warning or error message if it encounters a problem with a command in the CONFIG.SYS or AUTOEXEC.BAT file, or a command that you entered at the DOS prompt. Following are a few of the most common MS-DOS messages.

Bad command or file name

A command was entered that is spelled incorrectly or does not exist on the computer.

Invalid media type reading drive X (where X is any drive letter)

Abort, Retry, Fail?

The media may not be formatted. Press A to abort, then format the card using the MS-DOS Format command, or from Windows using the Format Disk command.

Invalid drive specification

You tried to access a drive that does not exist. This can happen if you try to access drive D, but the media is not loaded. Report this error to your supervisor or help desk.

Non-System disk or disk error

Replace and press any key when ready

This can occur if media is in the card socket and you restart the computer. Remove the media, and then press any key.

Not ready reading drive X (where X is any drive letter)

Abort, Retry, Fail?

Make sure that the media is inserted fully into the card socket, then press R to retry.

Windows Messages

Windows messages are typically self-explanatory. (See **Appendix B Troubleshooting**, for more information).

Application Messages

Both MS-DOS and Windows applications may display messages if a warning or error condition occurs. Refer to the online Help or other documentation for the application that generated the message.

APPENDIX B

Troubleshooting

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What to Try First

This section is designed to help you determine and fix problems you might encounter while operating the GoBook computer. Try the following things in order:

- First look through the categories in this section for a solution.
- If you don't find a solution for your situation here, try one of the resources listed below.
- If you are having a problem with a computer application, use the online Help that comes with the application to find a solution.
- If you still cannot resolve your problem, contact the help desk at your organization.

For More Help

- Windows Help is already installed on your system. To access this information, select Help from the Start Menu.
- Third-party Windows manuals are available from your local bookstore.

Common Solutions to Common Problems

Solutions to some common problems are listed on the following pages under these categories:

- Applications
- Batteries
- Display
- Hard Disk
- I/O Ports
- Keyboard
- Landline Modem
- Miscellaneous
- Mouse
- PC Cards
- Pen/Touch screen
- Peripherals
- Wireless Modem

Applications

My application locks up, acts strangely, or produces a General Protection Fault (GPF) error

- If you've tried to resolve the problem and your application still doesn't respond, you may need to restart your computer as described below.

  To reboot your computer, select Start, Shut Down, Restart, or press CTRL+ALT+DEL.

  If the computer does not restart, the keyboard may be locked up. Reset the computer by holding down the Power button for at least 5 seconds and then releasing the button.
- The data on the hard disk could be corrupted. Run SCANDISK.
- Windows is out of memory/resources. Exit Windows and restart Windows.

Communications programs such as HyperTerminal, or Procomm Plus don't seem to work or they lock Windows

- When you first try to use HyperTerminal or similar application, the system responds with a message asking if you want to install the modem. Answer "Yes" to this question and follow the instructions on the screen to install it.
- Verify with your company that your computer has an internal modem installed.

Batteries

The battery does not charge

- To prevent possible damage to the battery, the system will not allow a charge if the battery temperature is extremely hot or cold (such as in a closed, unattended vehicle). If possible, charge the battery in a location with a moderate temperature of around 20°C (68°F).
- If possible, turn off the computer while the battery is charging.
- If the battery is new or has been stored for a week or more, follow this procedure:
    1. Make sure the computer is turned off.
    2. Open the battery door and remove the battery.
    3. Connect the AC adapter to the computer and an AC wall outlet, and then turn on the computer by pressing the Power button.
    4. Reinstall the battery and replace the battery door.
    5. Allow the system to remain idle for one hour with the AC adapter connected to the computer.

       The Charging LED stays lit when the battery starts charging.
    6. If the battery still fails to charge after an hour, remove the battery, wait several seconds, and then install it again.

       If the battery does not begin charging within several minutes, return the unit for service.

The batteries take much longer than seven hours to charge

- Under moderate temperatures, about 21°C (70ºF), the computer's battery takes approximately 4 to 5 hours to completely charge. Under extremely cold or hot temperatures, however, the battery can take up to 16 hours to fully charge.

…Batteries

The batteries don't last very long

- Calibrate the battery using the Battery Calibration selection in Power Management (see **Section 6 Customizing Your Bios Settings** for additional information). If your battery is new or has not been used for several weeks, calibrating the battery over a weekend may substantially increase its capacity.
- As your battery ages, the maximum capacity that it can hold naturally decreases, and even the best maintained batteries eventually need to be retired. Consider replacing the battery if you are not getting the usage you need from it.

The gas gauge isn't full after charging the battery

- This may indicate that the charging process terminated prematurely.

The gas gauge reads "full," but the indicator light is still On

- If you charge your battery daily, rely on the gas gauge reading to determine battery capacity. The charging process may continue even if the gas guage reads full. External power can be removed because the battery is virtually full.

My battery seems to have less and less capacity

- If your battery is new, or if you are using it for the first time, you will need to calibrate it prior to using it (see **Section 5 Power Management** for additional information on battery calibration).
- Over time as your battery ages, the maximum capacity that it can hold naturally decreases, and even the best maintained batteries eventually need to be retired. Consider replacing your battery if you are not getting the usage you need from it.

Display

The display performance is slow

- The temperature may be too cold. Move the computer to a warmer operating environment.

I can't read the display

- Adjust the backlight.
- The automatic power-saving mode may have shut off (suspended) the computer. Press any key to resume.

The underlined, inverse, and hypertext characters are difficult to read on the screen

- Change the color scheme. From the Start Menu select Settings, Control Panel, choose Display, and then click the Appearance tab to make changes to the color scheme.
- Make the online hypertext jumps black by adding the line JumpColor=0,0,0 to the [Windows Help] section of WIN.INI.

I can't see the cursor while using the DOS editor

- Press FN+INSERT to change from insert mode to overwrite mode to enable a block cursor. When it defaults to insert mode, the DOS editor uses an underline cursor which is less visible than the block cursor for overwrite mode.

The display appears to have random pixels darkened after scrolling

- Contact your supervisor or your organization's help desk for information about correcting this problem.

I changed my display resolution, but I see no difference on the screen

- Try restarting your computer for the changes to take effect.

Hard Disk

The hard disk will not spin up so the computer can't boot up

- This occurs if the unit is exposed to extreme low temperatures. This is not a hardware failure associated with the hard disk. Allow the computer to warm to room temperature.

I can't save files because the disk is full

- Report this situation to your supervisor or your organization's help desk.

Diskette Read Error

- Any card in the PC card socket except for a properly formatted memory card will cause this error since it is trying to read the PC card.
- Any media in the installed media bay except for properly formatted media will cause this error since it is trying to read the media.

I/O Ports

I can't access a serial port

- Make sure another application is not using the same port.
- Make sure the correct COM port is selected in your application. Refer to the online Help for your application. Ports

Keyboard

Something unexpected happens when I press a key

- You may have pressed a key combination that performs a Windows function. Make sure you are pressing the correct keys for the application you are running.

Incorrect characters appear on the screen when I press certain keys

- You may be in NUM LOCK mode. Press NUM LOCK to toggle NUM LOCK mode off.

Landline Modems

The modem doesn’t work

- When you first try to use HyperTerminal or similar application, the system responds with a message asking if you want to install the modem. Answer “Yes” to this question and follow the instructions on the screen to install it.
- Make sure the communication settings are correct in your application. Refer to the online Help for your application.

The modem doesn’t dial a number

Check these things:

- If you are using an external modem, make sure the cables are attached correctly.
- Make sure your communications parameters are correct in your application. Refer to the online Help for your application.

…Landline Modems

The modem dials and receives an answer but does not establish a connection

- You may have incorrect parameters selected for your application to talk with the remote modem. Refer to the online Help for your application.
- You may need to adjust your modem's baud rate or protocol selection.

Communications programs such as HyperTerminal or Procomm Plus don't seem to work or they lock Windows

- If you are using the internal modem, be sure to specify the proper communications port.
- When you first try to use HyperTerminal or similar application, the system responds with a message asking if you want to install the modem. Answer "Yes" to this question and follow the instructions on the screen to install it.

The modem dials and the answering modem generates tone, but our modem does not begin the training sequence to establish a connection

Although the problem may appear to originate from the computer, the source of the problem is the answering modem.

- Try setting up the answering modem to generate the correct V.22 tone, which can usually be done by sending an AT command to the modem.
- Add **%!1300AO** to the initialization string. If used, this command must be sent immediately before the command to dial the desired phone number and sent again before re-dialing the number since the modem will default to the original setting at the end of the session.

Miscellaneous

The computer shuts off unexpectedly

- The computer has entered suspend mode. Press a key to turn it back on.
- The battery capacity may be low. Connect external power to charge the battery, or replace the battery with a fully charged one.
- The battery contacts may be dirty. Turn off the computer, remove the battery, and clean the contacts.

The speaker volume is too high or too low

- Increase the volume by pressing FN+F9; decrease the volume by pressing FN+F8.

The computer won’t turn on

- The battery may not be installed properly, or it may not be fully charged. Make sure a fully charged battery is properly installed.
- Connect external power to charge the battery if it is not charged.
- If you are using the AC adapter, check the electrical outlet you are using to make sure it is working properly.
- If the GoBook computer does not turn on, restart the computer by holding down the power button for at least 8 seconds and then releasing the buttons.

The computer won’t turn off

- Press and hold the Power button for at least 8 seconds.

The computer enters suspend mode too quickly

- When there is no activity for a period of time, the computer turns off or enters suspend mode. To extend this time, use the Power Management program and enter a new time.

…Miscellaneous

The computer doesn't automatically suspend

- Check to make sure the COM ports are off. For example, exit any application that uses COM ports.
- Make sure external power is not connected. Some systems will not suspend automatically when they are connected to external power.

The system date and time are incorrect

- Reset the correct date and time by choosing the Date/Time icon from Control Panel and making the appropriate changes.

I receive an "out of memory" error message

- Too many applications may be running at the same time. Close applications you don't need.
- Run MS-DOS applications in full screen rather than a window. Press ALT+ENTER to toggle between full screen and window mode.
- If you're using desktop wallpaper, set wallpaper to None. To do this, choose Display from Control Panel and make the appropriate change.
- Make sure you have enough space on your hard disk. Contact your supervisor or your organization's help desk for assistance.
- Set up a permanent swap file. Contact your supervisor or your organization's help desk for assistance.

Holding down the Power button to reset the computer doesn't always work

- Try resetting the computer again. If this doesn't work, remove all power, and allow the unit to remain idle for ten minutes. After ten minutes, connect external power and retry.

Mouse

I have difficulty double-clicking the mouse fast enough

- From the Start Menu, select Settings, Control Panel, and then choose Mouse. The Buttons tab contains the setting for the double-click speed.

I can't see the mouse pointer

- The mouse pointer may be off the screen. Move the mouse until it reappears on the screen.
- From the Start Menu, select Settings, Control Panel, and then choose Mouse. The Motion tab contains settings for the mouse speed and trail.

PC Cards

I can't remove the PC card

- Press the ejector button located inside the PC card door on the side of the computer. The button will pop out. Press down on top of the ejector button to eject the PC card. Slide the card out.
- If the ejector button malfunctions when you press it, release the button and then press it again.

Diskette Read Error

- Any card in the PC Card socket except for a properly formatted memory card will cause this error since it is trying to read the PC Card.

The system does not recognize the PC Card CD-ROM when it is inserted into the PC Card socket

- There is a delay of 10 to 15 seconds before the CD-ROM drive is recognized.
- Drivers may not be installed. Contact your organization's help desk for assistance.

...PC Cards

The computer locks up when I remove the PC card

- Before you remove the card, select the PC card icon in the system "tray" area of the screen (near the clock in the lower right corner), and choose "Stop [*card name*] card."

The computer locks up when inserting a PC card

- Because of the combination media bay configuration on the GoBook, the computer may not be locked up. Instead, it may be taking a couple of minutes before the system recognizes the PC card slot.

Pen/Touch Screen

When I try to use the stylus on my touch screen, nothing happens

- If you cannot select objects accurately with the stylus, you may need to recalibrate the touch screen.

  To calibrate the touch screen

  1 From the Start Menu, select Programs, UPDD, and then choose Calibrate.

  2 Follow the instructions on the screen to calibrate the touch screen.

The touch screen display warps or pillows in high humidity

- The computer remains functional; however, moving the computer to a more suitable environment will allow the display to recover.

Wireless Modems

How can I tell if my CDPD radio is working?

Try the following procedure:

1 From the Start Menu, select Programs, then “Sierra Wireless”, then “Aircard3XX”, then “WirelessExpert”

2 Press the Next Button

3 If you encounter an error message, follow the on screen instructions.

4 Verify or enter the correct NEI (Network IP address) and DNS (Domain Name Server IP address) for your CDPD network registration

5 Press the Next Button. WirelessExpert then automatically perform a series of tests. If a red X is displayed in any check box, then an error resulted from that test.

6 If a red X is displayed in the check box next to “Scan for Valid CDPD channel” then your CDPD radio cannot “hear” the cellular network. You are either out of RF coverage or have a RF performance problem. Check your RF coverage and antenna position. Press Back to repeat test.

7 If a red X is displayed in the check box next to “Register with CDPD Network” then your CDPD radio failed to register with the network. Check your CDPD network registration status with your CDPD provider. Press Back to repeat test

8 If a red X is displayed in the check box next to “Ping the network” then your CDPD radio cannot deliver a packet to itself through the CDPD network. Check with your CDPD network provider to verify your NEI and DNS are correct. If your NEI and DNS are correct, you may be at the edge of RF coverage or have a RF performance problem. Check your RF coverage and antenna position. Press Back to repeat test.

9 If a green check is displayed in all three of the above check boxes, then your CDPD radio is working properly. If you continue to have CDPD communication problems, check with your application support personnel to investigate your networking and application setup.

...Wireless Modems

How can I tell if my ARDIS/MOTIENT or RAM/BSWD radio is working?

- Enable a RIM Radio communication session
  1. From the Start Menu, select Programs, Communications, then Terminal.
  2. Double-click the "Make a new session" icon to bring up the Session Properties dialogue box. On the Communications Tab, enter a name for the session, select modem "RIM Radio on COM4", then click the configure button.
  3. Under the Device Properties Port Settings tab, check Manual Dial and configure the Connection Properties as follows:

Baud Rate	9600
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	Hardware

  4. Click OK to save these settings and return to Session Properties.
  5. Enter any digit in the Telephone Number block and click OK, then click OK again. This will bring up the Connection Dialing status window for your terminal session. In this box you will see an OK and a X box in the upper right hand corner. Click OK. The terminal session will come up again with a question mark (?) and an X.
  6. Type "menu" (entered keys will not be displayed) at the cursor to enter the diagnostic screen and view options for the session. The diagnostic will establish communications with the RF Modem and begin updating.

...Wireless Modems

Q – Quit the diagnostic and reset the radio. (ARDIS/MOTIENT & RAM/BSWD)

H – Displays RF Modem firmware and date. (ARDIS/MOTIENT & RAM/BSWD)

I – Toggle interactive Serial Mode Enabled. (RAM/BSWD)

B – Displays RF Modem battery level (Displayed as a percentage - inaccurate). (ARDIS/MOTIENT & RAM/BSWD)

R – Displays RSSI level in dBuV (dBuV - 107 = dBm). (ARDIS/MOTIENT & RAM/BSWD)

D – Displays RF Modem system status. (ARDIS/MOTIENT & RAM/BSWD)

P – Ping, which can be used to send a system check to yourself. (ARDIS/MOTIENT & RAM/BSWD)

N – Set the current network. (ARDIS/MOTIENT & RAM/BSWD)

7 Select an option from the menu for your session. For troubleshooting purposes, D, R, and P will gernerally establish if the RF Modem is functional.

Displaying RF Modem system status verifies that the computer can communicate with the RF Modem through the terminal application and allows the display of RF Modem specific information. Entering "D" will result in a display similar to the one below:

LLI=880C746 RSSI=21%-94 dBuV Battery Level=40% Network=ARDIS

Contact=Yes Protocol=MDC Power Save=Enabled Rx/Tx Enabled/Enabled

Radio Chan=2183 Base ID=C2/01/13/13

...Wireless Modems

Monitoring Receive Signal Strength Indicator (RSSI) level establishes connectivity within the coverage area. Entering "R" will result in a display similar to the one below:

Updating RSSI Level

RSSI=21% -94 dBuV

Pinging a unit by sending a message to itself through the network confirms the network connectivity. Entering "P" will result in a display similar to the one below:

Ping: Sending SDU to yourself

PING: STATUS SDU has been sent

Received SDU from 8800C746 - length 42

APPENDIX C
Glossary

AC adapter The standard charging device shipped with the GoBook computer that supplies power from an AC wall outlet to operate the computer and charge the battery installed in the unit.

antenna If you have a wireless modem installed in your computer, this device sends and receives radio waves for this modem. For best reception, place the antenna in a vertical position.

application A program designed for a specific purpose such as solving a particular business or mathematical problem.

backlight A feature of the computer display that makes information on the screen easier to read in low-light situations.

battery indicator light (LED) An indicator light on the LED light bar, this light illuminates when the computer is operating on battery power.

bit The smallest unit of computer data (binary digit).

desktop The screen background for Windows on which windows, icons, and dialog boxes appear.

dust cover A rubberized cover that provides added protection for the serial, parallel, and video ports, plus the USB, RJ-45, PS2, Mic and audio ports when they are not being used.

external power Any of the approved devices used to supply power to the GoBook computer including the AC adapter, the vehicle adapter, and the vehicle cradle.

external power light The first light from the left on the power indicator LED panel, this light illuminates when the computer is operating on external power. If a battery is installed, the external power supply automatically begins charging the battery when power is connected. The light remains on when the battery is fully charged.

fast charge A method of quickly increasing the battery capacity while the GoBook computer is attached to external power. This is the normal and preferred charging method. It takes approximately four hours to fully charge the battery using this method.

hard disk A rigid magnetic storage device that provides fast access to stored data. The standard hard disk for the GoBook computer is ruggedized to withstand more shock and vibration than hard disks in typical notebook computers.

hardware The electronic components, boards, peripherals, and equipment that make up your computer system.

indicator lights The small lights that blink or remain on or off to indicate activity on the system. They include an Power On/Off light, an External Power light, a Disk Activity light, and a Radio On/Off light.

keyboard The keyboard (87-Key US / UK; 89-Key International) is weather sealed and designed with standard key spacing.

megabytes (MB) A unit of memory measurement equal to approximately one million bytes (1,048,576 bytes).

megahertz (MHz) A measurement of electrical frequency equal to one million cycles per second.

microphone An application that allows a user to talk into the computer, or to another person.

Microsoft Windows 98 An operating environment for MS-DOS used on IBM-compatible computers that provides users with graphical windows in which to do their work. All Windows applications have consistent features such as command menus, windows, and dialog boxes.

Microsoft Windows 2000 An operating environment based on the previously release Windows NT 5.0 Operating System (OS), and designed for IBM-compatible computers. All Windows applications have consistent features such as command menus, windows, and dialog boxes.

MS-DOS Microsoft Disk Operating System. The standard, single-user operating system of IBM-compatible computers.

on/off light The second LED from the left on the power indicator panel, this light illuminates when you turn on the GoBook computer.

online help A help utility available on-screen while you are using an application.

operating system A set of programs that manage the overall operation of the computer.

parallel port A port that can be used to connect a printer.

PC card A self-contained, credit card-sized device that can be used to store programs, data, or to expand the capabilities of your computer.

port An interface between the computer and external devices.

Power On Self Test (POST) A diagnostic test run by the computer's BIOS system when the computer restarts.

power port A port used to connect the external power supply to the GoBook computer.

radio on/off light The right-most light on the indicator panel. If your computer is equipped with a radio modem, this light turns on when the radio modem is powered on. When the computer is off, the light blinks to indicate a message is waiting.

Random Access Memory (RAM) The computer's primary working memory in which program instructions and data are stored so they are accessible directly to the central processing unit (CPU).

RJ-11 connector A port used by the internal modem to communicate over standard voice grade telephone lines.

RJ-45 connector This is the standard Ethernet network connector, supporting 8 copper wires. You plug an RJ-45 cable into an RJ-45 port.

ruggedized The unique design of the GoBook computer that is built to withstand rugged, mobile work environments.

serial port A port that can be used to connect a printer or modem.

slow charge A method of increasing the battery capacity while the computer is attached to external power. This method uses lower AC voltage. It takes approximately 16 hours to fully charge the battery using this method.

Self-Monitoring Analysis and Reporting Tool (SMART) This technology reports on a variety of hard drive attributes. With SMART you should be able to receive system warnings about your hard drive and avoid costly lost data with early warning.

software System, utility, or application programs expressed in a computer-readable language. Software programs tell the hardware components what to do.

speaker Located on the front of the computer, the two speakers provide sound for the unit.

suspend mode Suspend mode turns off certain functions of the computer if there is no activity for a user-specified time. The computer also enters suspend mode if the battery capacity becomes critically low and external power is not connected or the battery is not replaced. Some systems do not automatically enter suspend mode when they are connected to external power.

System Configuration Utility (SCU) A utility that allows you to change default settings for your hardware options and power management.

Taskbar In Windows 98, the area along the bottom of the screen that contains the Start button and buttons for windows, documents, or applications that are open.

utility A program that helps you maintain and improve the efficiency of the computer system.

vehicle adapter An optional device that supplies power from the vehicle battery to operate the computer and charge the battery installed in the unit. It typically connects to the vehicle battery using the cigarette lighter socket.

vehicle cradle An optional, vehicle-based docking station designed to safely secure the computer in a vehicle. You can also use the vehicle cradle to charge batteries, or to communicate with other devices.

Video Graphics Array (VGA) This is a video standard that allows for resolutions up to 640x480 with up to 16 colors at a time. It also allows for 320x200 resolution with 256 colors.

video port This port can be used to connect an external monitor.

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